

26 APRIL 2000



Maintenance

**MAINTENANCE TRAINING AND
PRODUCTION ACCEPTANCE
CERTIFICATION (PAC) PROGRAM**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the HQ AFMC WWW site at: <http://afmc.wpafb.af.mil>. If you lack access, contact the Air Force Publishing Distribution Center (AFPDC).

OPR: HQ AFMC/LGP (Mr. Bob Glovka)
Supersedes AFMCI 21-108, 26 February 1998

Certified by: HQ AFMC/LGP (Mr. Ronald D. Baty)
Pages: 56
Distribution: F

This instruction establishes the minimum requirements and the standardized criteria for depot maintenance training and the PAC programs. It implements AFD 21-1, *Managing Aerospace Equipment Maintenance*, AFI 21-101, *Maintenance Management of Aircraft*, AFI 21-102, *Depot Maintenance Management*, AFMCPD 21-1, *Depot Maintenance Policy*, AFD 36-4, *Air Force Civilian Education and Training*, and AFMCI 36-201, *Education and Training*. It applies to all AFMC organizations that produce depot maintenance products or services, including the industrial operations at the Aerospace Maintenance and Regeneration Center (AMARC), covered in the Depot Maintenance Activity Group (DMAG). This instruction does not apply to the Air National Guard or US Air Force Reserve units and members not performing depot maintenance.

SUMMARY OF REVISIONS

This is a complete rewrite of this instruction. The quality assurance requirements in chapter two of the previous version have been moved to a new instruction: AFMCI 21-115, *Depot Maintenance Quality Assurance (QA)*. In its place, a depot maintenance training program, for both PAC and support personnel, has been added. The relationship between the training program and PAC is explained. The training program requires establishment of a maintenance training function and describes the interface between this function and the center education and training function. Standard maintenance training has been identified with lead centers designated. On the Job Training (OJT) criteria has been established for both structured and traditional OJT. The basic tenets of PAC remain unchanged but they have been clarified and expanded in most areas. The procedures for the identification and review of Special Skills Qualifications (SSQ), critical tasks and secondary certification requirements have been greatly expanded. Several new metrics along with analysis and reporting requirements have been added.

Chapter 1

INTRODUCTION

1.1. General Information. This instruction provides guidance, procedures, and responsibilities for the depot maintenance PAC and training programs to ensure maintenance support and production personnel are technically qualified and proficient to perform assigned tasks. Maintenance training and PAC are important parts of the overall quality system that places responsibility for product quality on the product directors. Product and service conformance is the responsibility of the applicable work center and the individual who performs the work. These programs assist in ensuring that depot products and services conform to all technical requirements and specifications.

1.1.1. HQ AFMC/LG is the OPR for the PAC and Maintenance Training programs. The AFMC Maintenance Training and PAC Working Group will process revisions to this instruction. Major changes will be approved by the AFMC Logistic Business Board (LBB) process prior to implementation unless directed by higher authority.

1.1.2. The Maintenance Training and PAC programs' effectiveness is a shared responsibility, starting with senior management and cascading down to the certified PAC employees. ALC and AMARC Commanders are responsible for ensuring timely implementation of the requirements of this instruction. Commanders will appoint a center Maintenance Training Manager and a PAC Program Manager to support this requirement.

1.2. Maintenance Training. The depot maintenance training process provides a structured program for initial, continuation, recurring, and special skills training to ensure depot maintenance personnel are properly trained.

1.3. Production Acceptance Certification (PAC) Program. The PAC program certifies employees to perform and accept completion of assigned work. PAC does this through systematic training, qualification and certification of individuals.

1.4. PAC Relationship to QA. The PAC program is not a quality assurance program. The PAC program fulfills the inspection requirement that all goods and services produced are performed in accordance with technical data. It must be used as part of the QA system described in AFMCI 21-115, *Depot Maintenance Quality Assurance (QA)*, and other DOD, Air Force, and AFMC directives that apply. The quality program ensures that the processes and supporting environments are the best possible to support PAC, provide measurement, and promote continuous improvement.

1.5. PAC Agreement. PAC is an agreement between management and employees. PAC employees must be trained and qualified, then must demonstrate proficiency before they are certified to accept their own work. PAC employees are then held accountable for the conformance of their work. They certify that the work they performed meets all technical data, safety, and other applicable directives. Management's part of the agreement is to ensure that all the factors of production and the industrial environment are correct (such as, training, safety, material, equipment, technical data, work documents, facilities, data systems, etc.) to enable the worker to produce quality products and services.

1.6. Employee Bill of Rights. PAC technicians and mechanics, along with all other AFMC personnel, must be empowered to take responsible actions that will contribute to safety, quality, and productivity. To make this happen, the following Employee Rights are guaranteed without threat or fear of reprisal:

- The RIGHT to challenge business as usual.
- The RIGHT to be heard.
- The RIGHT to expect commitment to quality.
- The RIGHT to place quality before production.
- The RIGHT to feel genuine pride in AFMC products and services.

1.7. Local Directives. This instruction provides basic requirements of the program, and will be expanded as necessary to implement and maintain the center program. Local directives will be developed or updated for implementation within 180 days from the publication of this instruction.

1.8. Supporting Systems. PAC documentation to track employee's qualification and certification will be contained in the automated PAC standard system (PACSS), GO-15, as a minimum, includes the information of AFMC Form 75, Job Certification Standard. When hard copies are used they will be maintained in AFMC Form 795, Production Acceptance Certification. The Education and Training Management System, (ETMS Web) is the only automated system for collecting and managing training requirements for AFMC employees.

1.9. Maintenance Training and PAC Program Oversight. An annual program review must be accomplished to include:

- Determining adequacy of local directives.
- Sampling of training and PAC records in all applicable production organizations.
- Crosschecking of certification actions on work documents against the employee's training, qualifications and certifications.
- Sampling of all SSQ training requirements, qualification and documentation procedures.
- Analyzing training and PAC metrics to determine trends for process improvement.

AFMCI 21-132, *Depot Maintenance Technical Compliance Review Procedures*, 5 Jan 00, provides procedural guidance, reporting requirements and metrics that will be used for the annual review.

1.10. Procedures for Waiver Requests and Proposed Changes to this Instruction. Air Logistics Center Commander at each ALC will sign all waiver requests. Waiver requests or proposed changes will be sent to HQ AFMC/LG for action and to AFGE Council 214 for information. Requests for waivers will also contain justification as to why the unit cannot comply with existing guidance. Deviations including "test" or "trial" programs are NOT authorized without prior HQ AFMC/LG written approval.

Chapter 2

MAINTENANCE TRAINING

2.1. Maintenance Training. An effective maintenance training program uses a combination of training formats to include: formal classroom instruction, formal briefings, structured on-the-job training (SOJT), and traditional (OJT) to qualify personnel to the proficiency levels required to meet the AFMC depot maintenance requirements. Formal training includes two standards for learning; knowledge-based and performance-based. All maintenance personnel must receive training relative to their position series and specific job assignment. All maintenance training will be developed in accordance with (IAW) AFMAN 36-2234, *Instructional System Development (ISD)*. Depot maintenance training requirements, requests, changes, and deficiencies identified will be referred to the Air Logistic Center Education and Training Function (typically Center DPE).

2.1.1. AFMC Maintenance Training. This training structure will take the employee through a systematic learning process from general knowledge/skills training to weapons/component specific technical training. Personnel performing depot maintenance tasks will require specific weapons system or component specific technical training. Maintenance support personnel will require general and technical training relative to their position. Maintenance training courses will be reviewed for accuracy at least every two years. AFI 36-2232, *Maintenance Training*, provides further information.

2.1.2. Knowledge-based Training. This training involves learning system/component configuration, theories, and philosophies of a system, program or process, and task knowledge. This training is required prior to performance-based training. This standard of training gives the employee the foundation to build skills, abilities, and proficiency. Formal classroom instruction and briefings are methods of this training.

2.1.3. Performance-based Training. This training involves the introduction, development, application, and the actual performance of job skills and tasks. This standard of training provides the employee with skills to perform general and specialized tasks. Performance-based training combined with job/task experiences and demonstration of proficiency give the employee the skills and abilities to perform at required levels. SOJT and traditional OJT are normally the methods used for this training.

2.2. Formal Classroom Instruction. Formal classroom instruction will be provided to personnel that require technical knowledge of a system, equipment, or process. Air Education Training Command (AETC) technical training centers and Training Detachments (TD) should be the primary source for system knowledge training. In-house or contracted training development and delivery can also be used to provide general technical training. This training must be completed before qualification/certification for specific tasks. System or task specific training (classroom, SOJT, traditional OJT) normally will not begin until general technical training is accomplished. Formal briefings are used to inform employees of non-technical information, safety awareness, process or procedures changes, and general shop or work information.

2.3. On-the-Job Training (OJT). OJT is designed to give the employee the necessary skills to perform specific duties and assigned tasks. The OJT formats used for depot maintenance will be structured or traditional.

2.3.1. Structured OJT (SOJT). SOJT is the most reliable form of OJT to provide technical skill proficiency. SOJT allows the employee to obtain task knowledge and skills through a series of structured, defined, and planned activities. A qualified SOJT trainer/qualifier explains and demonstrates all learning and performance requirements to the employee. The employee must gain proficiency by performing the requirements under the careful observation of the SOJT trainer/qualifier. SOJT is designed from a thorough analysis of the job or task. The SOJT trainer/qualifier uses a systematic approach to introduce the learning requirements to the employee. This method ensures the employee understands the learning requirements, performance standards, and sequence requirements. SOJT process for development will follow the guidelines established in this instruction. SOJT guides and completion checklists are identified in attachment 2. (See paragraph 5.17 for SOJT trainer/qualifier responsibilities).

2.3.2. Traditional OJT. Traditional OJT is the most common form of training. This type of training requires the employee to work with the trainer on a day-to-day basis to obtain task knowledge and experience. The person conducting the OJT must train by specific technical orders, process orders, regulatory guidance, and engineering drawings. Documentation of OJT starts when the employee is assigned to the task trainer/qualifier. OJT is completed when the task trainer/qualifier verifies to the supervisor that the employee is trained and proficient in the tasks documented in PACSS. (See paragraph 5.19 for PAC task trainer/qualifier responsibilities).

2.4. Training Requirements. Maintenance training starts with the identification of training requirements for PAC and support personnel. The requirements must include formal classroom and/or OJT. The supervisor and the Division Maintenance Training Manager will establish and submit the training requirements to the appropriate training provider for assigned personnel.

2.5. Basic Maintenance Training Requirements. Basic maintenance training requirements are generally one time training actions that are required based on the work being performed. These include such things as safety requirements, use of tools and equipment, data systems, etc., that are required to perform duties in the assigned work area. These are defined by the supervisors based on the work being performed and must include all regulatory training requirements that apply and any local additions.

2.5.1. Maintenance Support Personnel Training. Personnel that provide support to maintenance production processes (planners, schedulers, quality specialists, etc) must meet training requirements for their skill series. These requirements will be established in the 21 and 36-series instructions that set policy and procedures for the functions performed. Support personnel training requirements and completions will be documented in the AFMC designated Education Training Management System (ETMS Web).

2.5.2. PAC Personnel Training Requirements. Personnel who perform depot maintenance must complete training requirements prior to PAC certification. Requirements must include general knowledge (technical order usage, safety, tool control, etc), general skills, weapons system, as well as task specific training. PAC related training requirements will be identified in the PAC Standard System (PACSS).

2.6. Recurring Training Requirements (RTR). Recurring training requirements normally support many different tasks. Command designated recurring training requirements apply to more than one center. Recurring training requirements that are weapons system/component specific or unique to one center

must be documented in local directives. There are two types of recurring training requirements; those that can be directly related to PAC tasks and those that are general in nature.

2.6.1. **General Recurring Training Requirements.** This training applies to an occupation or a group of related tasks. These requirements are not directly tied to specific tasks. Recurring time requirements must be met. Overdues are reported monthly to the production division for corrective action. If the training requirements cannot be met within 90 days the overdues must be reported to the Directorate level for corrective action or PAC decertification as required. Chronic problems with general RTR training overdues must be reported to the Center Maintenance Training and PAC Council for resolution. Mandatory general training requirements are in attachment 3. This list is not all inclusive, Centers will establish additional General RTRs specific to the work requirements and document the requirements in local directives.

2.6.2. **Task Related Recurring Training Requirements.** This training is required to perform tasks (i.e., confined space entry, weapons safety training, etc.). Task specific RTRs are linked to specific tasks and will cause automatic decertification if not completed on time. PAC certification will not be granted until this training is completed. Mandatory task related RTRs are in attachment 4. This list is not all inclusive, Centers will establish additional Task Related RTRs specific to the work requirements and document the requirements in local directives.

2.7. Special Skills Qualification (SSQ) Training Requirements. Specialized training is required for SSQ skills, either formal classroom and traditional OJT or formal structured on-the-job training (SOJT). Adequacy of the training is determined through proficiency demonstrations, periodic requalification and, if applicable, passing written test. Mandatory SSQ requirements are found in paragraph 4.10.

2.8. Lead Centers for RTRs and SSQs. The AFMC Maintenance Training and PAC Working Group will assign lead centers to manage specific RTRs, SSQs, and other standardized training requirements. The lead center PAC Working Group is responsible for designating a center OPR to provide expertise for training and policy guidance. These OPRs will keep HQ AFMC/LGP advised of changes in the training or SSQ requirements related to this instruction (see paragraph 5.9 for specific lead center responsibilities).

2.9. Training Documentation. Documentation of completion is required for all maintenance training and is in the form of course attendance rosters, course completion certificates, SOJT completion checklists, SSQ proficiency checklists, and PACSS. Training documentation format and standards will be IAW attachment 5. Training will be identified and tracked utilizing the AFMC ETMS Web system and PACSS.

2.9.1. **ETMS Web.** ETMS Web is a web-based, interactive database system that allows supervisors and/or training managers to identify and maintain employee training requirements. This system also serves as a mechanism through which training requests are submitted to training providers and training schedules are established. Further information on ETMS Web will be contained in AFMCI 36-201, *Education and Training Guide*.

2.9.2. **PACSS GO-15.** PAC Standard System (PACSS) is a computer database system that identifies training and qualifications requirements, job tasks, proficiency demonstrations, and certification status for depot maintenance personnel. Further information on PACSS is contained in chapter 3 of this instruction. Training not related to PAC may be identified in the PACSS data system if locally directed.

2.9.2.1. Section IV “Training Summary Data” of the PACSS is used as a supplemental record and explanation of training and qualification actions taken in other sections of PACSS that are not self-explanatory. These entries include: documenting granting of equivalency; completion of specific course modules when the complete course is not required; one-time training/briefing requirements; remedial training/requalifications actions taken as a result of deficiency reports; etc. Entries in this section are removed after one year unless they are required to document on-going qualification/certification action.

2.10. Temporary RTR Extensions . Temporary extensions for RTRs can be approved locally by the Product Director as long as they do not violate specific requirements of the higher level regulatory documents. The extension must be in writing and a copy maintained by the Center Maintenance Training Manager. Extensions will not exceed 90 days unless a waiver is obtained from HQ AFMC/LG. This period is extended to 180 for employees who are on TDY. TDY personnel who have been extended past 90 days will be immediately retrained upon return, obtain a waiver from HQ AFMC/LG, or be disqualified/decertified as applicable.

Chapter 3

PAC POLICY AND PROCEDURES

3.1. Production Acceptance Certification (PAC) Program. The PAC program objective is to certify employees to perform and accept assigned work. PAC does this through systematic training, qualification and certification of individuals to self-inspect and accept their own work. Basic inspection requirements are met through self-inspection and if designated, as secondary certification inspection of another employee's work. These are in-process/product and end-process/product inspections that certifies the work performed meets technical requirements. This certification inspection places responsibility for the quality of the work on the initial certifying employee and if designated for secondary certification, on the employee who inspects the work. Production certification is accomplished by the employee(s) inspecting the work and stamping the appropriate documents. Some work requires the application of special skills requiring specialized training and control.

3.2. Special Skills Qualification (SSQ). SSQs are skills so specialized they require extensive technical knowledge and proficiency. Most of these skills are governed by military specifications, higher level regulatory guidance, are safety related, or have a significant impact on cost. SSQ is a prerequisite for PAC task certification for those skills established by this instruction. Additional requirements may be established at local centers. See Chapter 4 of this instruction for specific SSQ requirements and Chapter 5 for individual responsibilities.

3.3. PAC Program Applicability. The PAC program applies to all depot maintenance production performed by depot personnel using WCDs (such as AFMC Forms 958/959, Work Control Document, AFMC Form 173, MDS Project Workload or an electronic equivalent). Personnel in supporting functions such as software support, physical sciences laboratories, are not normally included in the PAC program. If these functions perform direct DMAG production work utilizing WCDs identified in AFMCI 21-110, *Depot Maintenance Technical Data and Work Control Documents*, they must be controlled using PAC procedures. These functions must ensure personnel are qualified as prescribed in guidance relating to the specific work performed (i.e., lab certification for physical sciences labs). These organizations and others may be included in PAC if approved locally and documented in the center PAC directive. All depot production documents as described in AFMCI 21-110 must be certified by a PAC certified employee. Other documents directly supporting depot production are designated and certified as locally determined. The training and PAC documentation requirements of this instruction apply to the internal Precision Measurement Equipment Laboratories (PMEL) supporting the on-site test equipment and other on-site production equipment covered by TO 00-20-14, *AF Metrology and Calibration Program*.

3.4. Certification Requirements. All depot maintenance product and service tasks will be certified as conforming to all governing technical data, specifications, safety, and other applicable directives. This is accomplished when a PAC certified employee stamps the applicable WCD with assigned maintenance stamps. The certifying individual(s) is responsible for the conformance of that task/service. Certification of tasks requiring SSQ will only be certified by individual(s) current in that skill and certified for the specific task. Personnel in training status may perform SSQ tasks if a SSQ qualified trainer is supervising the training, and the task is certified by an SSQ qualified and PAC certified individual(s).

3.5. PAC Task Identification. All PAC tasks will be identified in PACSS, with specific designators for all SSQ tasks. A task is a necessary and logical step in the completion of a larger industrial process or procedure involving a product or product related service. The applicable supervisor has the responsibility and authority to ensure tasks are adequately identified. A PAC task must be identifiable, trainable, and auditable. Tasks should be specifically related to a WCD when possible. A task may include the ability to accomplish work required by several WCDs. In some cases, however, it may not be possible or practical to define tasks by WCDs. In those instances, the responsible supervisor may define tasks in the manner most appropriate to meet work and training requirements. When the work performed does not lend itself to this kind of task definition, (i.e., machine shops and similar operations), PAC tasks will be structured to the nature of the service performed. This can be by skill, machine, type of service or other logical breakdown. Primary technical data and other references for the task will be identified in PACSS. PAC task standardization will be accomplished to the extent possible for similar work.

3.6. Critical PAC Task Identification. All production performed by AFMC personnel will be reviewed to identify maintenance tasks that could result in one of the following critical conditions. This is an integral part of the work planning process as described in AFMCI 21-110.

- A catastrophic failure of an end item.
- End item failure that may affect safety of flight.
- End item failure that may present an imminent safety or health hazard or affect a life support system.

These tasks are identified as critical in nature. The first level supervisor will ensure critical PAC tasks are identified and included in the PACSS data system for their area of responsibility.

3.7. PAC Training. Training in support of PAC consists of formal classroom, SOJT, and traditional OJT. All training required for PAC task qualification/certification shall be documented including all basic/recurring training requirements, SSQ training, and completion dates in the PACSS. Additional documentation for SOJT and traditional OJT is required with start and completion dates annotated in PACSS. If a standard listing of training or matrix is utilized for a work center or skill, training that applies to the specific individual shall be indicated in PACSS. Due to differing workloads and requirements, training is tailored to meet individual work center needs. Standard training courses shall be utilized for similar training needs. Supervisors will use written verification from the SSQ Official as proof of SSQ qualification/requalification. This document will be used to update the employee's PAC record.

3.7.1. PAC Familiarization Training. New employees, assigned to a product directorate who perform depot maintenance industrial operations, shall receive an initial AFMC PAC familiarization training course within 60 days. Production employees who have not had this training will not perform unsupervised work. PAC refresher training will be provided to all PAC employees, maintenance support personnel, supervisors and managers every three years.

3.8. Training Prerequisites for PAC Tasks. Prerequisite training will be identified when appropriate. Prerequisites could include formal classroom, SOJT, and SSQ qualification/requalification requirements. Assignment of mandatory prerequisites must be documented in PACSS, and linked to the tasks they support.

3.9. Critical PAC Task Training. All critical PAC tasks must be evaluated to determine the type of training required to ensure safe completion of the tasks. Formal classroom or SOJT (with SOJT completion checklist) are the preferred method of training for complex critical tasks. As an alternative, traditional OJT may be used for critical task training using the technical data as a training guide, with documentation of OJT start and completion dates in PACSS.

3.10. Certification Official for Employee. The first level supervisor is the lowest level authorized to certify employees. Supervisors not qualified in a specific skill/task will utilize qualified/certified work leaders or journeymen mechanics as PAC task trainer/qualifiers who can assist in training and verifying proficiency of individual employees. Qualified/certified work leaders will be used for this purpose when possible. Employee certification can only be accomplished by the first level or higher supervisor with authority over the employee.

3.11. Employee Qualification/Certification Criteria . All training and other qualifications required for task certification will be completed before employee is certified. The minimum requirement for any task certification is completion of required training (formal classroom or OJT) and a proficiency demonstration before certification is granted. Training will include inspection techniques to educate mechanics/technicians on how and where to look for defects. Other qualifications may be required for some tasks, however, such as an eye exam, physical ability, etc. Proficiency at performing the task must be demonstrated to a designated PAC task trainer/qualifier or PAC task certifying official (i.e., performing tasks for a specific time or number of repetitions). Granting of equivalency for formal training will be approved by the division training manager based on prior training documentation from civilian or military training records. Equivalency can not be granted for SSQ or safety training requirements. The proficiency demonstration is always required prior to qualification and/or certification. Waivers for formal training are not permitted.

3.12. Annual PAC Employee Certification Review. The supervisor will perform an annual certification review with each assigned PAC employee. During this review PAC training requirements are screened to ensure accuracy and currency. The PAC employee must be briefed on the objectives and requirements of the program and the responsibilities of certifying WCDs. The PAC employee must be given the opportunity to challenge the validity of any of the information in the PAC record. Both the supervisor and PAC employee must sign and date the annual certification review form signifying they are satisfied that the documents are correct and the certifications are still valid. This may be done electronically when this capability exists with the employee using an electronic signature (PIN) after the supervisor provides the current information to the PAC employee to verify. Information no longer required for current qualification/certification should be removed and retained in PACSS history.

3.13. Decertification Criteria . PAC employees will be decertified when there is a verifiable deterioration in the quality of the work performed, for administrative reasons, or through revocation. Any level of management can direct a decertification, but the certifying supervisor actually decertifies an individual. Decertification is based on, but not limited to; failure to comply with technical data and other applicable directives, improper completion of WCDs, valid customer complaints or feedback (both external and internal), supervisory recommendations, invalid secondary certification, final functional test or other testing failures, deteriorating work habits, failure to maintain SSQ currency, task related overdue recurring requirements, and PAC related mishaps, or non-performance of the task for a prolonged period. An individual(s) will be decertified if a quality assessment task evaluation is failed, refer to AFMCI 21-115 for

specifics. Specific decertification criteria will be established and documented at the local level and shall ensure consistency among employees. The certifying supervisor shall maintain a copy of the decertification criteria. Decertification actions will be reported monthly to division level management for review and corrective actions as required.

3.14. Recertification Criteria. Recertification can be accomplished once the conditions of decertification have been resolved or removed. If the conditions of the decertification only involve one step in a task, re-accomplishment of the entire training and proficiency demonstration may not be necessary. Initial certification criteria will be used for recertification.

3.15. Certifying WCDs. All WCDs must be stamped certifying that the work performed meets all requirements of the technical data, specifications, safety, and other applicable directives. Certification codes on WCDs are established in AFMCI 21-110 to reflect the type of certification and inspection required. Specific codes are used to differentiate between those tasks requiring certification by a single PAC certified employee and those requiring certification by two PAC certified employees (secondary certification). Certification of tasks will be performed by someone qualified and PAC certified in that specific task. Personnel not certified on the task being performed can accomplish the work if they are qualified to the extent necessary. However, the WCD can only be certified by a PAC certified employee on the specific task.

3.15.1. WCD certification consists of one of the two inspection requirements below as applied to single or secondary certification:

- End-process/product inspection of the completed task or service.
- In-process/product inspection of the task as it occurs or actual participation in performing the complete task.

NOTE: Supervisors accepting work by certifying WCDs for maintenance tasks will meet the same training, qualification, and certification requirements as the PAC certified employee and will require a PAC record.

3.16. Secondary Certification. Secondary certification (second set of eyes) will be applied and is required for all critical tasks. They can also be used as a designated inspection tool to help control problem/high dollar tasks, provide measurement, and improve processes. Secondary certification will be accomplished using one of the PAC certification codes identified in AFMCI 21-110.

3.16.1. Secondary certification requirements are determined during the work planning process. The pre-production and production planning teams identify critical tasks that meet criteria defined in paragraph 3.6. These are included in the work control documents prepared for the workload. The following areas must be considered when identifying these requirements along with any other sources that are available for specific workloads:

- All mandatory SSQ tasks except those that are non-critical (i.e. some soldering tasks).
- All cautions and warnings generally have associated tasks that are critical in nature.
- Other items identified in the technical data identified by the Statement of Work (SOW) that meet the criticality criteria.
- Mishaps and other safety reports/alerts, and investigations involving the workload that identify critical areas.

- Previously identified problem areas from similar workloads.
- Deficiency reports especially category one and other customer feedback.
- Any mandatory inspection or other applicable items identified in the SOW.

3.16.2. After the initial work planning process is complete, the first level supervisor or higher has the primary responsibility for identifying additional operations for secondary certification requirements. The planner must work closely with the responsible supervisor to ensure all critical items identified in the technical data are included. Changes in workload requirements and technical data must be carefully screened for tasks that meet the criticality criteria. When critical tasks (secondary in-process certification) are performed by a team, the team chief will brief the team members on all safety requirements prior to task initiation. The process for identification of secondary certification shall be reviewed at least annually during the PAC internal review as outlined in AFMCI 21-132.

3.17. Multitask, Subtask and Team Task Certification . When possible, the same individual or crew should perform multitask work to maintain continuity. For multitask and subtask certifications the person performing the last operation must certify on the WCD that the portion they performed was done correctly and that all previous work has been completed and certified if applicable. Before the last certification the work must be inspected/tested to ensure it meets requirements. Every effort will be made to document who performed specific portions of complicated tasks so that accountability can be maintained. This will be done by multiple annotations on the WCDs as specified in AFMCI 21-110 and local directives.

3.18. Identification and Review of PAC Formal Training Requirements. Pre-production planning teams will analyze all workload requirements as they are planned and identify new candidates for SSQs and formal/SOJT training development needs. After the initial planning process, the responsible planner and production supervisor must ensure all workload changes are analyzed for additional formal training requirements. Special attention will be given to critical tasks that may need SOJT and added tasks that require new skills and abilities that may require adding new SSQs. If the identified requirement is unique to an ALC or to a weapons system it will be added to the locally identified SSQ, or formal/recurring training lists. If the new requirement has application to other centers or to a similar workload, the Center PAC Program Manager will notify HQ AFMC/LGP.

3.18.1. All SSQ, recurring training and other formal classroom/SOJT training requirements will be reviewed annually by the Center Maintenance Training and PAC Working Groups. This review will determine adequacy of existing training and identify new requirements. Emphasis will be placed on training to support critical tasks and secondary certification. The assessment will examine all new and modified work for PAC tasks that may require local or command formal classroom/SOJT training. The Center Maintenance Training and PAC Working Group will provide recommendations to the Center Maintenance Training and PAC Council for approval prior to forwarding to HQ AFMC. The AFMC Maintenance Training and PAC Working Group will review recommendations for new mandatory SSQ requirements and additional formal training requirements for inclusion in this instruction. New requirements will be approved by the AFMC DMAG Working Group.

3.18.2. Lead Centers for SSQ/recurring training requirements and command standard training will evaluate the training annually. The evaluation will include a review of the current guidance in this instruction for adequacy and completeness. The lead Center will contact other ALC subject matter experts (SME), for assistance as necessary. The results of the evaluation will generate changes and

additions to the command mandatory requirements. Results will be provided to HQ AFMC/LGP at the same time the annual PAC review results are reported.

3.19. PAC Documentation. Automated PACSS, must be used to document PAC. AFMC Form 75 as generated by the PACSS represents the minimum documentation requirements for PAC. This system represents the source data for PAC and will be used for all official purposes such as audits, investigations and inspections. Electronic signatures in the form of personal identification numbers (PIN) may be used when this capability exists. Changes made to an employee's PAC record are not official until the employee verifies them by PIN or signature. If depot work is performed for an extended period where PACSS support is not available, use of printed copies of PACSS data is permitted. When PAC personnel go TDY to perform depot maintenance they will carry a copy of their PAC record with them. Depot field team requirements are outlined in AFMCI 21-120, *Organic Depot Field Teams*. All personnel using PACSS must be trained using the AFMC PACSS course.

3.20. Combat Logistics Support Squadron (CLSS), Air Force Reserve Command (AFRC), Active Duty Military, and Individual Mobilization Augmentees (IMA). When CLSS, AFRC, active duty, IMAs, and other military personnel perform depot maintenance, they are required to comply with all applicable directives including the SSQ requirements of this instruction. AF Form 623, Individual Training Record, and other appropriate documentation can be used in place of PACSS. Duplication of records should be avoided to the extent possible. Local directives must specify the forms and procedures to be used by these personnel when performing depot maintenance tasks. Applicable records must accompany these personnel when they are deployed to perform depot maintenance.

Chapter 4

SPECIAL SKILLS QUALIFICATION (SSQ)

4.1. Special Skills Qualification (SSQ). SSQs are skills so specialized that they require extensive technical knowledge and proficiency. Most of these skills are governed by military specifications or higher level regulatory guidance since they are safety related or have a significant impact on cost. SSQ is a prerequisite for PAC certification for those skills established by this instruction and additional requirements established at local centers. See paragraph 4.10. for mandatory SSQ requirements.

4.2. SSQ Applicability. Mandatory SSQ requirements apply to all AFMC organizations performing depot maintenance. Special skills require a periodic requalification. Individuals who fail the requalification or cannot be requalified within the designated time frame will be disqualified for that SSQ skill and decertified for all PAC tasks related to the SSQ.

4.3. Local SSQ. Local SSQ requirements will be established for unique center requirements.

4.3.1. All local SSQs will be administered by the Center PAC Program Manager and approved by the Center PAC Council.

4.3.2. Locally designated SSQs will meet all requirements of this instruction.

4.3.3. All locally designated SSQs will be forwarded to HQ AFMC/LGP with copies to all Centers.

4.3.4. HQ AFMC/LGP will ensure that locally designated SSQs will be standardized for common MDSs.

4.4. SSQ Training. Specialized training is required for SSQ skills, either formal classroom and/or formal structured on-the-job training (SOJT), proficiency demonstration, periodic requalification and if applicable passing a written test. Proficiency demonstration and written testing criteria are listed for each mandatory SSQ skill requirement. All applicable AFI, AFMCI, AFOSH, and other regulatory and safety requirements will be included in all SSQ training. See paragraph 4.10. of this instruction for specific SSQ qualification requirements.

4.5. SSQ Qualification Officials. The SSQ qualification officials must be Subject Matter Experts (SME) in the skills they support. They shall possess sufficient knowledge, skills and abilities in the skill to perform this function. SSQ Officials must be appointed for each SSQ both command and locally designated. The SSQ Officials will not qualify personnel they supervise. When this is not possible, an SSQ qualified supervisor may be appointed in writing. In this case, care must be taken to ensure the program integrity is maintained during the annual PAC review. If a local expert is not available to act as the SSQ official an outside source can be designated. The order of selection is; another ALC or AFMC unit, another Air Force unit, another DOD source, academia, or other commercial/private source. If none of these sources are available, the PD will use the system engineers and/or other technical experts to develop qualification requirements and train, then qualify the first SSQ Officials.

4.5.1. SSQ Official initial qualification requirements:

- Must be appointed in writing by the production division supported. (Note: Center SSQ officials can be designated in writing as specified in local instructions when they support more than one product directorate).

- Must be SSQ qualified in the skill supported.

4.5.2. SSQ Official requalification requirements:

- Qualification intervals and requirements are the same as for the SSQ technicians/mechanics for that skill.
- Qualification is performed by another Qualification Official designated for the same SSQ. If another SSQ Official for the same SSQ is not available see the order of preference in paragraph 4.5.

4.5.3. SSQ Qualification Official Process. As the SMEs, the SSQ Qualification Officials ensure the requirements in paragraph 4.10 of this instruction (and for local SSQ guidance) are adequate and current. The SSQ Official will notify their Division PAC Program Manager of problems or needed additions. The center PAC Program Manager will notify HQ AFMC/LGP who will work with the designated lead center to resolve the problems or make needed changes in command guidance. The SSQ Officials will prepare and use a SSQ proficiency checklist for each SSQ supported. SSQ Officials supporting the same skill will standardize the SSQ proficiency checklists to ensure consistency of skill application. The SSQ Officials will participate in the development of the formal training supporting their SSQ. They can deliver the classroom instruction or SOJT for their SSQ if so designated. The SSQ Official must always witness and evaluate the performance of the skill using the appropriate SSQ proficiency checklist. Some SSQ Officials may be required to analyze/evaluate test specimens for their SSQ. When all qualification requirements have been met, the SSQ Official informs the responsible PAC certification supervisor and provides documentation that the employee is eligible for certification on the tasks requiring that SSQ.

4.6. SSQ Requalification. Requalification will be accomplished in accordance with each independent SSQ requirement established in paragraph 4.10.

4.7. SSQ Disqualification. Disqualification will be accomplished in accordance with each independent SSQ disqualification requirement established in paragraph 4.10. SSQ disqualification will result in immediate decertification on SSQ related PAC tasks.

4.8. Request for SSQ Waivers and Extensions. Request for waivers to the initial qualification requirements will be sent to HQ AFMC/LG and to AFGE Council 214 for information, after they have been reviewed by the center PAC Program Manager and approved by ALC/CC. The waiver will be initiated in writing by the Division PAC Manager. The Center PAC Program Manager will maintain a copy on file.

4.8.1. Temporary extensions to retraining/requalification requirements can be approved locally by the Product Director as long as they do not violate specific requirements of the higher level regulatory documents. The extension will be initiated in writing by the Division PAC Manager. The Center PAC Program Manager will maintain a copy on file. Extensions will not exceed 90 days unless a waiver is obtained from AFMC/LG.

4.9. SSQ Qualification/Requalification Documentation Requirements. The SSQ qualification/requalification documentation consists of an SSQ guide and a proficiency checklist that will be developed utilizing the format and listed elements in attachment 6. The SSQ guide and proficiency checklist identify the standards or specific procedures that must be accomplished to ensure integrity, verification, and con-

sistency in the SSQ process. SSQ documentation requirements are mandatory for AFMC and locally designated SSQs.

4.10. Mandatory Special Qualification Skills. The special skills listed in this chapter are mandatory requirements. These skills are designated mandatory requirements because they require special training either formal classroom and/or structured OJT; proficiency demonstration to a designated SSQ qualification official; periodic requalification; and, if applicable, passing a written examination. In some cases the employee will not require qualification on all portions of the SSQ. These individuals need to be qualified only to the extent they are technically proficient and can safely perform their portion of the SSQ. If this option is used, the portions of the SSQ qualification must be developed and documented using the same SSQ standard as the local SSQ. The tasks they can perform must be identified to differentiate them from the full SSQ requirement. The references listed for the mandatory skills are not intended to be all-inclusive, and must be used with other directives and technical publications that apply to the specific skill to develop qualification requirements. It is essential that all AFOSH and other applicable safety requirements are included in the formal training. New or revised AFMC-wide SSQ requirements will be proposed by the AFMC Maintenance Training and PAC Working Group and approved by the AFMC Maintenance Training and PAC Council before implementation unless directed by higher authority.

NOTE: AMARC will comply with the following SSQ requirements where possible. When unique aircraft requirements make it impractical for full compliance, AMARC will establish a training program that provides the best qualification possible. These procedures will be approved by the AMARC/CC and documented in local directives.

4.10.1. Aircraft Engine Run-up.

4.10.1.1. Regulatory Documents. Compliance with AFI 11-218, *Aircraft Operation and Movement on the Ground*, as supplemented, the applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.1.2. Lead Center. OO-ALC, Hill AFB, Utah.

4.10.1.3. Application. Applies to all personnel who start, run-up, operate or test engines installed in aircraft at any power level including co-pilot position. These procedures do not qualify anyone to taxi, or otherwise move any aircraft under its own power, or to operate removed engines/engine test cells.

4.10.1.4. Qualification. The following are minimum initial qualification requirements that will be locally augmented as necessary:

4.10.1.4.1. One year experience on MDS/similar aircraft/engine and six months flight line experience (except for new workloads when the best-qualified concept will be used).

4.10.1.4.2. Formal classroom training and structured OJT consisting of as a minimum:

- Aircraft systems familiarization.
- Cockpit/flight deck familiarization (Instrument, switch and circuit breaker functions and locations).
- Cockpit egress/ground escape procedures.
- Engine run procedures.
- Emergency procedures (including system brake operation).

- Abnormal operations.
- Aircraft marshaling.
- Aircraft cabin/cockpit/fuselage pressurization test/check procedures (as they relate to engine run-up).
- Auxiliary power unit (APU)/ground turbine compressor (GTC)/air turbine motor (ATM) operation etc. as applicable.

4.10.1.4.3. Completion of initial simulator (or cockpit procedures trainer) session.

4.10.1.4.4. Written test consisting of two parts:

- A 25 questions (minimum) general knowledge test, 85 percent correct minimum passing score, corrected to 100 percent.
- BOLDFACE/Emergency procedures test, 100 percent correct passing score (committed to memory).

4.10.1.4.5. Proficiency demonstration to a SSQ qualification official.

4.10.1.5. Requalification. Required every 12 months consisting of as a minimum:

4.10.1.5.1. One simulator (or cockpit procedures trainer) session. When the individual is qualified for several similar aircraft, rotate simulators each year (if possible) to vary experience.

4.10.1.5.2. Proficiency demonstration to a SSQ qualification official for each similar aircraft/engine configuration.

4.10.1.5.3. Written test (same criteria as initial qualification).

NOTE: If simulator time is difficult to schedule for annual requalification, it may be performed, at center discretion, in a cockpit/flight deck demonstration in lieu of a simulator session. If this option is used, the mechanic must complete qualification training, to include a simulator session, at least every 3 years.

4.10.1.6. Currency. Currency is maintained if an engine run has been performed within 90 days for each MDS. If 90 days to 180 days have past without performing an engine run a proficiency demonstration to a SSQ qualification official is required. If 180 days is exceeded without performing an engine run annual requalification is required.

4.10.1.7. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, or failure to perform required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Failure to maintain qualification or currency, failure to comply with boldface items (emergency procedures) and/or failure to maintain the required level of proficiency will be grounds for disqualification. Requalification is granted when the deficiency is corrected and all qualifications have been met as described above.

4.10.1.8. Special Requirements. The responsible supervisor will review each engine run crewmembers' PAC record for qualification, certification and currency, for the MDS and power setting required, before they are assigned to the crew. All personnel occupying a cockpit/flight deck position during aircraft engine run-up must have completed, and be current in the applicable cockpit egress/ground escape familiarization course. When possible, flight test personnel or other rated personnel, will qualify (initial and annual requalification) all center SSQ qualification officials under actual SSQ standards. When simulator/cockpit trainer (CPT) and/or structured training is

nonexistent for an MDS, alternative methods for engine run requirements will be developed by the center and approved by HQ AFMC/LG. Care must be taken to ensure safe operation under these unusual circumstances regardless of the time required. For AMARC only, this authority is delegated to the AMARC/CC.

4.10.2. Engine Test Cell Operator.

4.10.2.1. Regulatory Documents. Applicable engine TOs/checklists/job guides, test cell operation instructional manual, and applicable AFOSH standards.

4.10.2.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

4.10.2.3. Application. Applies to all personnel who operate aircraft engines and small gas turbines in test facilities.

4.10.2.4. Qualification. Granted after successful completion of the required training and passing a written examination consisting of two parts:

- Part 1 - A written examination (minimum of 10 questions) on emergency procedures (BOLDFACE). A score of 100 percent must be achieved. Failure to attain 100 will require further training.
- Part 2 - A written examination (minimum of 15 questions) on the specific type-model engine. A minimum score of 85 percent, corrected to 100 percent, is required. After completing the required training, and passing the written examination, personnel will demonstrate proficiency to a SSQ qualification official. As a minimum, this will include demonstrated knowledge of the test cell fire extinguishing system and the ability to perform a normal engine acceptance test.

4.10.2.5. Requalification. Required every 12 months. Consists of a written examination, 85 percent correct, corrected to 100 percent is the minimum passing score, and a proficiency demonstration to a SSQ qualification official.

4.10.2.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.3. Aircraft Towing.

4.10.3.1. Regulatory Documents. AFI 11-218 as supplemented, applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.3.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

4.10.3.3. Application. Applies to all personnel occupying a cockpit position for aircraft towing, operating a vehicle actively towing an aircraft, or acting as a tow team chief. Wing walkers, tail walkers, and all other support personnel performing assigned duties during towing operations do not need SSQ. These personnel will be trained and qualified to the extent necessary to perform the function as determined locally.

4.10.3.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.3.5. Requalification. Required every 12 months. Consists of a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.3.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.3.7. Special Comments. All personnel occupying a cockpit position during the towing operation must have completed, and be current, in the applicable cockpit egress/ground escape familiarization course.

4.10.4. Airframe Jacking and Leveling.

4.10.4.1. Regulatory Documents. Applicable weapons system TOs, checklists/job guides, AFOSH standards and directives.

4.10.4.2. Lead Center. OO-ALC, Hill AFB, Utah.

4.10.4.3. Application. Applies to all personnel performing the following functions: jacking chief, hydraulic manifold operator, and the leveling member.

4.10.4.4. Qualification. Granted upon successful completion of required training and a demonstration of proficiency to a SSQ qualification official.

4.10.4.5. Requalification. Required every 24 months. Consists of a demonstration of proficiency to a SSQ qualification official

4.10.4.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.5. Aerospace Explosive Devices Arm/De-Arm.

4.10.5.1. Regulatory Documents. AFMAN 91-201, *Explosive Safety Standards*, AFI 91-202, *US Air Force Mishap Prevention Program*, applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.5.2. Lead Center. WR-ALC, Robins AFB, Georgia.

4.10.5.3. Application. Applies to all personnel who remove and install non-egress explosive devices, such as explosive squibs, impulse cartridges, guillotine charges, etc.

4.10.5.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.5.5. Requalification. Required every 12 months. Consists of a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.5.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.6. Refuel/Defuel Operations.

4.10.6.1. Regulatory Documents. TO 00-25-172, *Ground Service of Aircraft and Static Grounding/Bonding*, applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.6.2. Lead Center. WR-ALC, Robins AFB, Georgia.

4.10.6.3. Application. Applies to all personnel involved with refueling or defueling of any aerospace vehicle.

4.10.6.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.6.5. Requalification. Required every 12 months. Consists of a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.6.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency to ensure the safe transfer of fuel, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.6.7. Special Comments. Due to the criticality of transferring fuel, only those directly involved with the process will be allowed within the area of the transfer. Periodic monitoring of the actual process in progress is required to ensure adherence to all applicable directives and to ensure the high state of proficiency required in this process is maintained.

NOTE: All personnel occupying a cockpit position during the transfer of fuel must have completed, and be current in, the applicable cockpit egress familiarization course, if an operational egress system is installed, or emergency ground escape course.

4.10.7. Aircraft Cabin/Cockpit/Fuselage Pressurization.

4.10.7.1. Regulatory Documents. Applicable weapons system TOs/checklists/and job guides, applicable AFOSH standards, and directives.

4.10.7.2. Lead Center. OO-ALC, Hill AFB, Utah.

4.10.7.3. Application. Applies to all personnel who perform aircraft cabin/cockpit/fuselage pressurization checks or functional tests requiring aircraft pressurization using either aircraft or exter-

nal sources of pressurization. Applies to all tasks directly related to the pressurization check/test included in applicable TO, checklist/job guide or work control document.

4.10.7.4. Qualification. Granted after successful completion of required training; achieving a passing score of at least 85% on a written examination (corrected to 100%); and a successful demonstration of the ability to perform the check/test in accordance with all the requirements of the technical data to a SSQ qualification official.

4.10.7.5. Requalification. Required every 12 months. Must demonstrate the ability to perform the check/test in accordance with all the requirements of the technical data to a SSQ qualification official.

4.10.7.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, or failure to perform the pressurization check/test procedure in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.7.7. Special Comments. Because of the wide variations in these checks/tests based on the type of aircraft supported, local procedures must be developed to meet specific weapons systems needs. The local procedures will include the training requirements of ancillary personnel participating in the check/test but not directly performing the task. All personnel occupying a cockpit/crew cabin position during any portion of the aircraft cabin/cockpit pressurization process must have completed, and be current in the applicable cockpit egress/ground escape familiarization course.

4.10.8. Aircraft Canopy Rigging.

4.10.8.1. Regulatory Documents. The applicable weapons system TOs/checklist/job guides, applicable AFOSH standards, and directives.

4.10.8.2. Lead Center. OO-ALC, Hill AFB, Utah.

4.10.8.3. Application. Applies to all personnel who perform rigging operations on aircraft canopies (inclusion of the F-111 canopy hatch in this SSQ is a local option). In some cases the canopy rigging task(s) may be part of the egress qualification for that MDS. If this is the case the egress SSQ is all that is required.

4.10.8.4. Qualification. Granted upon completion of required training and a demonstration of proficiency in the canopy rigging operation to a SSQ qualification official.

4.10.8.5. Requalification. Required every 24 months. Consists of a demonstration of proficiency to a SSQ qualification official.

4.10.8.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.9. Flight Controls Rigging.

4.10.9.1. Regulatory Documents. Applicable weapons system TOs/checklist/and job guides, applicable AFOSH standards, and directives.

4.10.9.2. Lead Center. WR-ALC, Robins AFB, Georgia.

4.10.9.3. Application. Applies to all personnel who perform aircraft flight control rigging (flight control rigging includes all tasks associated with the operational checkout and adjustment of mechanical, hydraulic and/or electrical systems which control aircraft flight direction and attitude). Personnel trained in flight control rigging may be specialized in either the mechanical, hydraulic or electrical skill of rigging. Personnel assisting in the rigging process in a support role may not require SSQ at the discretion of the SSQ qualification official. These personnel must have sufficient knowledge to perform their assigned role, and work under the direction of an SSQ qualified technician.

4.10.9.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.9.5. Requalification. Required every 12 months. Consists of a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.9.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.9.7. Special Comments. All personnel occupying a cockpit/crew cabin position during any portion of the flight control rigging process must have completed, and be current in the applicable cockpit egress/ground escape familiarization course.

4.10.10. Aircraft Egress/Escape Systems.

4.10.10.1. Regulatory Documents. AFI-21-112, *Aircraft Egress and Escape System*, AFMAN 91-201, *Explosive Safety Standards*, AFI 91-202, *US Air Force Mishap Prevention Program*, applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.10.2. Lead Center. OO-ALC, Hill AFB, Utah.

4.10.10.3. Application. Applies to all personnel who remove, repair, install and/or inspect egress systems. An egress technician is a civilian series 6652, Aircraft Ordnance Systems Mechanic, of the appropriate grade for the task or the military equivalent (AFSC 2A6X3) who meets the requirements of this instruction. Other personnel who perform egress tasks (including series 6652) when they are not their primary duties are egress augmentees. Augmentees must meet the requirements of this instruction for the tasks performed.

4.10.10.4. Qualification. Initial qualification for egress technicians and augmentees consists of as a minimum:

4.10.10.4.1. Completion of the aircrew egress systems apprentice course or have equivalent training/experience.

4.10.10.4.2. An initial weapons safety course as specified in AFI 91-202, *The US Air Force Mishap Prevention Program*.

4.10.10.4.3. Complete an AETC (preferred) or local comparable (journeyman/five level) egress course for the specific MDS aircraft.

4.10.10.4.4. A written examination of at least 25 questions, a score of 100 percent will be achieved (failure to attain 100 percent correct will require further training and retesting).

4.10.10.4.5. A demonstration of acquired knowledge and skill proficiency to a SSQ qualification official.

4.10.10.5. Requalification. All egress technicians and augmentees will be requalified every 18 months. Requalification will consist of:

4.10.10.5.1. Refresher training to include weapons safety and any other major changes in technical data since last requalification.

4.10.10.5.2. Written test same criteria as initial.

4.10.10.5.3. A demonstration of acquired knowledge and skill proficiency to a SSQ qualification official.

4.10.10.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified. Requalification is granted when the deficiency is corrected and all qualifications have been met as described above.

4.10.10.7. Special Requirements.

4.10.10.7.1. Demand Response. All direct egress tasks will be performed by at least two SSQ qualified egress personnel using demand-response procedures where possible. One member of the demand-response team must be a fully qualified and certified egress technician. This individual must sign off all tasks completed by the team. Non-egress qualified personnel can assist if they are in a training status or when performing ancillary duties in support of and under the direct supervision of fully qualified egress personnel.

4.10.10.7.2. Life Support tasks in support of depot maintenance will normally be performed by qualified and certified egress technicians. If dedicated personnel are used for life support tasks they should be series 4818, Aircraft Flight Equipment Repairing personnel, meeting the requirements of the Aircrew Life Support Career Field Education and Training Plan for the tasks performed or have comparable training and experience. A local SSQ will be established for this purpose.

4.10.10.7.3. Local Courses and Instructors. Whenever possible, local instructors should use AETC course materials. Locally developed courses taught by a local egress instructor may be used if it has been reviewed for technical adequacy by AETC (if the weapons system is currently supported) or if AETC cannot perform this function it will be reviewed by the best available egress expert for the system. Local instructors must be highly experienced and fully qualified egress personnel. At least once every 36 months, to ensure instructor quality, local egress instructors will attend the aircraft specific AETC approved training, receive OJT (one week working with other egress journeymen at another facility with the same MDS), or have another fully qualified egress instructor from another unit audit their course offering. All

egress training materials must be validated every 12 months by the applicable qualification official. Compliance of course review and instructor competency will be verified during the annual PAC review.

4.10.10.7.4. AMARC. There are normally no requirements for specific egress training on aircraft being maintained in storage or being processed into reclamation. For aircraft being processed into storage, egress personnel must be qualified and certified to perform all egress tasks in support of the storage function. AETC training should be utilized when possible. For those MDSs that are not supported by AETC training, AMARC will establish a training program to satisfy unique aircraft egress requirements. The program will provide for the development and delivery of training using the best available expertise. The designated egress SSQ qualification official will only qualify personnel when they are satisfied that the function can be performed safely.

4.10.10.8. Cockpit Access. All personnel, other than qualified egress personnel, who require access to cockpits equipped with operational egress systems, must complete a general familiarization course (preferably hands-on) on safety and knowledge of hazards of the egress system every 12 months. This requirement includes newly assigned personnel regardless of past experience. If the instructors are not egress qualified, the training must be witnessed and verified by the applicable SSQ qualifying official or an egress supervisor every 6 months, as a minimum.

4.10.10.9. Ground Egress/Escape. All personnel who work on aircraft must have the ability and knowledge required to safely egress the aircraft before working in the aircraft in case of an emergency. This training must be practical in nature to the extent possible. This training must be completed before further qualification or certification training has begun within the aircraft. Retraining/demonstration will be completed every 24 months as a minimum, however, supervisors must take immediate actions when physical impairment of any kind hinders this ability.

4.10.11. Fuel Cell Repair.

4.10.11.1. Regulatory Documents. TO 1-1-3, *Inspection and Repair of Aircraft Integral Tanks and Fuel Cells*, AFOSH Standards, applicable weapon systems TOs/checklists/job guides, and directives.

4.10.11.2. Lead Center. WR-ALC, Robins AFB, Georgia.

4.10.11.3. Application. Applies to all personnel who perform final inspection and close-out, sealant removal/resealing, and pressure check/test of integral tanks or fuel cells (to include bladders). Depot maintenance of fuel system components may be included at local discretion. Personnel who perform ancillary duties in support of fuel cell/tank work may not need SSQ, but must be trained to the extent necessary to safely perform the tasks.

4.10.11.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.11.5. Requalification. Required every 12 months. Consists of a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.11.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure

to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.11.7. Special Comments. If the integral, auxiliary, or external tank is removed from the aircraft the SSQ requirement still applies.

4.10.12. Fiberglass Radome Repair.

4.10.12.1. Regulatory Documents. TO 1-1-24, *Maintenance Repair and Electrical Requirements for Fiberglass Airborne Radomes*, applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.12.2. Lead Center. WR-ALC, Robins AFB, Georgia.

4.10.12.3. Application. Applies to all personnel who perform repairs to any airborne radomes constructed of reinforced fiber and resin impregnated materials. Applicability to other similar aircraft parts or accessories will be determined locally.

4.10.12.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score corrected to 100 percent, and a demonstration of proficiency as outlined in TO 1-1-24 to a SSQ qualification official.

4.10.12.5. Requalification. Required every 12 months. This consists of two parts:

- Repairing simulated damage to fiberglass panels of the type of construction normally repaired, with the structural integrity verified by destructive testing.
- Demonstration of proficiency to a SSQ qualification official on work normally performed.

4.10.12.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.13. Parachute Repairer and Packer.

4.10.13.1. Regulatory Documents. TO series 14D1, 14D2, 14D3, 14S1, and other applicable directives.

4.10.13.2. Lead Center. WR-ALC, Robins AFB, Georgia.

4.10.13.3. Application. Applies to all personnel who inspect, repair, or pack parachutes.

4.10.13.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.13.5. Requalification. Required every 12 months. Consists of a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.13.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be

grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.14. Non-Destructive Inspection (NDI).

4.10.14.1. Regulatory Documents. NAS 410, *National Aerospace Standard (NAS) Certification and Qualification of Nondestructive Test Personnel*, and AFI 21-105, *Aerospace Equipment Structural Maintenance*, AFOSH 91-110, *Nondestructive Inspection and Oil Analysis Program*, and other directives.

4.10.14.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

4.10.14.3. Application. Applies to all personnel who perform NDI on aircraft, missiles, and ground equipment.

4.10.14.4. Training. Comply with training/examination requirements of NAS 410.

4.10.14.5. Qualification. The SSQ qualification official must be a level III in the applicable method. Qualification is granted after successful completion of all requirements of NAS 410 for applicable NDI method.

4.10.14.6. Requalification. Eye exams administered by the base medical facility on an annual basis. Requalification requirements for all levels are as specified in NAS 410, paragraph 5.7.4.

4.10.14.7. Currency. Comply with currency requirements of NAS 410.

4.10.14.8. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified. Failure to pass qualification or requalification requirements will also constitute grounds for disqualification and will require a 30 day interval before retesting.

4.10.14.9. Records. AFMC Form 74, *Nondestructive Inspection Personnel Qualification and Certification Record* must be maintained by the SSQ qualification official.

4.10.15. Soldering.

4.10.15.1. Regulatory Documents. TO 00-25-234, *General Shop Practice Requirements for the Repair, Maintenance, and Test of Electrical Equipment*, applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.15.2. Lead Center. OO-ALC, Hill AFB, Utah.

4.10.15.3. Application. Applies to all personnel who perform soldering on aerospace electrical and electronic equipment. This includes all depot maintenance personnel engaged in repair, maintenance, or test of aerospace electrical/electronic equipment. Plant management personnel who perform soldering on test equipment and other aerospace equipment that directly supports depot production are also included. Command standard soldering courses include: high reliability, high reliability, limited, hot air, ceramic substrate, surface mount, multi-layer, high voltage, and micro-miniature. (**Note:** The high reliability limited course is a shortened version of the full high reliability course).

4.10.15.4. Qualification. Will consist of as a minimum:

4.10.15.4.1. Technicians. Training should be adapted to the specific soldering tasks supported. Requires successful completion of the applicable AFMC Command Standard Course(s), a written examination (minimum of 25 questions) with a passing score of 85 percent, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.15.4.2. Instructors and Qualification Officials. Requires successful completion of the AFMC Instructor Soldering Course, a written examination (minimum of 25 questions) 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to the course instructor.

4.10.15.5. Requalification. Will consist of as a minimum:

4.10.15.5.1. Technicians. Requalification intervals are established based on criticality of the work performed but will not exceed 2 years. If the work is critical in nature or impacts safety of flight, the interval will not exceed one year. Requires successful completion of a demonstration of proficiency to a SSQ qualification official.

4.10.15.5.2. Instructors and Qualification Officials. Shall be requalified every 2 years by successfully completing the AFMC Instructor Soldering Requalification Course; a written examination (minimum of 25 questions) 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to the course instructor.

4.10.15.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Additionally, qualification can be revoked if inspection records or other evidence indicates poor workmanship or unreliable habits. Requalification is granted when the deficiency is corrected and all qualification requirements, as described above, have been met.

4.10.15.7. Special Comments. On initial qualification, personnel with prior soldering experience may take the written and demonstration of proficiency in lieu of structured training. A score of 85 percent correct is the minimum passing score, corrected to 100 percent, for qualification on the written examination. When possible, the soldering instructors should also be SSQ solder qualification officials to ensure continuity between the structured training and the demonstration of proficiency.

4.10.15.7.1. Eye Exams. Eye exams may be required for solder qualification if the type of work performed justifies this action. This is determined locally based on the nature and criticality of the soldering supported. The following vision requirements can be used as applicable:

4.10.15.7.1.1. Far vision: Snellen chart 20/50, or better.

4.10.15.7.1.2. Near vision: Jaeger 1 of 0.50 mm letters at 14 inches (35.56 cm) or better.

4.10.15.7.1.3. Color perception: Normal as determined by means of standard color plates (i.e., dvorine pseudoisochromatic plates, Ishihara plates, or equivalent).

4.10.16. Liquid and Gaseous Oxygen Handler and Equipment Maintenance.

4.10.16.1. Regulatory Documents. TO 42B6-1-1, 15X and 35 series TOs, applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.16.2. Lead Center. OO-ALC, Hill AFB, Utah.

4.10.16.3. Application. Applies to all personnel who service, store, transfer, or otherwise handle liquid and/or gaseous oxygen. All personnel who perform maintenance on liquid and gaseous oxygen equipment, such as removal and installation of lines, pressure relief valves and regulators, purging, bleeding, vacuumizing, pressure checks, etc.

4.10.16.4. Qualification. Granted after successful completion of the required training and a demonstration of proficiency to a SSQ qualification official.

4.10.16.5. Requalification. Required every 12 months. Consists of a demonstration of proficiency to a SSQ qualification official.

4.10.16.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified. Retraining and successful demonstration of proficiency to a SSQ qualification official will be required prior to regaining qualification.

4.10.17. Selective Plating.

4.10.17.1. Regulatory Documents. Applicable weapons systems and general TOs and other applicable technical and safety directives.

4.10.17.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

4.10.17.3. Application. Applies to all personnel perform the process of selective electrode position of various metals and alloys on other metals and alloys.

4.10.17.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official. Recommended source documents for the test questions are manufacturers technical data sheets and TOs.

4.10.17.5. Requalification. Required every 12 months. Consists of a demonstration of proficiency to a SSQ qualification official. The type of practical demonstration will be designated, in writing, by the qualification official.

4.10.17.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.18. Temper Etch.

4.10.18.1. Regulatory Documents. MIL-HDBK-6870, applicable AFOSH standards, technical orders, and other directives.

4.10.18.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

4.10.18.3. Application. Applies to all personnel perform temper etching on applicable aircraft and missile structural and propulsion system components.

4.10.18.4. Qualification. Granted upon successful completion of required training, and passing a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.18.5. Requalification. Required every 12 months. Consists of a written examination, 85 percent correct is the minimum passing score, corrected to 100 percent, and a demonstration of proficiency to a SSQ qualification official.

4.10.18.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.19. Brazing Operator.

4.10.19.1. Regulatory Documents. MIL-STD-B-12673 (planned to be replaced by a new MIL-DTL-12673) applicable AFOSH standards, weapons system technical orders, checklists, job guides, and other directives.

4.10.19.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

4.10.19.3. Application. Applies to all personnel who perform oxyacetylene brazing according to MIL-STD-B-12673 and induction brazing.

4.10.19.4. Qualification. Granted upon successful completion of required training and a demonstration of proficiency of the employee's ability to braze a joint on a representative production part to a SSQ qualification official. Brazing operator must have met the requirements of 4.10.20 Welding prior to Brazing Qualification.

4.10.19.5. Requalification. Required every 12 months. Consists of a demonstration of proficiency to a SSQ qualification official.

4.10.19.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified.

4.10.20. Welding.

4.10.20.1. Regulatory Documents. TO 00-25-252, TO 00-25-224, MIL STD 1595 (note: MIL STD 1595 will be replaced by AMS-MIL1595), MIL STD 221 (quality) applicable AFOSH standards, technical orders, and other directives. Note: MIL STD 1595 & MIL STD 2219 are in the processes of being combined into one commercial American Welding Specification, AWS D17.1. Upon publishing, AWS D17.1, will be adopted as the AFMC standard for welding qualification, quality and design for welding.

4.10.20.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

4.10.20.3. Application. Applies to all aircraft and missile welders who perform gas, tungsten and argon welding (GTAW) will be qualified according to TO 00-25-252, with exception. AFMC will meet the intent of the 6G requirement by using joint positions 3G, and 4G (Single square groove in sheet 0.063 or less and Single V-groove, one pass for thicknesses greater than 0.063", IAW MIL-STD 1595. To meet this requirement AFMC will meet the requirements by using joint positions 2F in sheet and 5F fillet weld in tube. Welder must first requirements of a Level 2 GTA Welding, in the specific material and class of weld quality specified by the prior to applying for any other welding or brazing operation, such as resistance welding, electron beam, automatic GTAW, Plasma Arc, oxyacetylene brazing etc. Operators who perform welding on high pressure or cryogenic systems will be qualified according to TO 00-25-224. For operations not covered in the above TOs, MIL-STD1595 applies modified locally as necessary based on the unique welding operations performed, difficulty of joints, and stricter quality welds. A welding operator is defined as one who operates machine or automatic welding equipment in direct support of aircraft and missile depot work.

4.10.20.4. Qualification. Granted upon successful completion of required training and a demonstration of proficiency to a SSQ qualification official. To achieve qualified status, welders and welding operators shall demonstrate their skill by producing test welds according to MIL STD 1595. Operators must pass an eye exam requiring corrected vision in each eye for long distance of at least 20/30 and for 16 inches distance permits reading of Jaeger No. 2 type. Local waivers may be granted on a case by case basis where these vision requirements are not necessary for the work being performed.

4.10.20.5. Requalification. A welder or welding operator must be requalified every 5 years to the same requirements as the initial qualification. Requalification is also required when there is a specific reason to question the ability of a welder or welding operator to meet the requirements for qualification in a given welding process.

4.10.20.6. Disqualification. Observed deficiencies or deviations from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be requalified. Local procedures shall be established for training requirements and the cooling off period after a disqualification for welders not meeting the quality requirements for the level welding class required. Welder will be limited to two attempts for requalification, after which welder will be permanently disqualified.

4.10.21. Thermal Spray.

4.10.21.1. Regulatory Documents. AMS 2437, applicable AFOSH standards, weapons system technical orders, checklist, job guides and other directives.

4.10.21.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma

4.10.21.3. Application. Applies to all personnel who perform thermal spray on aircraft, missiles, or jet engine components.

4.10.21.4. Qualification. Granted upon the completion of the required training, passing a written examination with 85 percent minimum passing score corrected to 100 percent, and successful proficiency demonstration (practical test) on the work to be performed to a SSQ Official.

4.10.21.5. Re-Qualification. Required every 12 months consisting of a demonstration of proficiency as required for initial qualification and every 24 months passing a written examination with 85 percent minimum passing score corrected to 100 percent.

4.10.21.6. Disqualification. Observed deficiencies or deviation from technical data, safety violations, valid customer complaints, failure to maintain the required level of proficiency, or failure to perform the required procedures in accordance with the applicable technical directives can be grounds for immediate disqualification. Initial SSQ qualification requirements must be met to be re-qualified.

Chapter 5

RESPONSIBILITIES

5.1. Headquarters AFMC Depot Maintenance Division (HQ AFMC/LGP). HQ AFMC/LGP is the office of primary responsibility (OPR) for depot maintenance training and the PAC program. LGP will coordinate all command depot maintenance training and PAC requirements. LGP will facilitate maintenance training and PAC assistance, ensuring standardization of training activities, and complying with current training directives and guidance. HQ AFMC/LG will approve command-wide depot maintenance training programs prior to implementation. HQ AFMC/LGP will assign the course number to all Command courses and courses that apply to more than one center to include SOJT guides.

- 5.1.1. Chairs the AFMC Maintenance Training and PAC council.
- 5.1.2. Provides training and PAC staff assistance to the centers.
- 5.1.3. Processes all waivers and deviations to this instruction.
- 5.1.4. Functional manager for the PACSS.

5.2. Headquarters AFMC Education and Training Division (HQ AFMC/DPE). HQ AFMC/DPE manages the AFMC training process. HQ AFMC/DPE will establish policies, and provide guidance for depot maintenance training program development, implementation, and improvement. Facilitate contracting to provide maintenance training, command-wide standard course development and delivery.

- 5.2.1. Manages the command training programs to support the Maintenance Training and PAC program requirements.
- 5.2.2. Ensures that training information such as course catalog and course completion dates are readily accessible to support Maintenance Training and the PAC program.
- 5.2.3. Functional manager for the Education and Training Management System, (ETMS Web).

5.3. AFMC Maintenance Training and PAC Council. The AFMC DMAG Working Group as part of the LBB process will normally perform this function. This is chaired by HQ AFMC/LGP.

- 5.3.1. Provides policy/guidance for Maintenance Training and PAC and related issues. Approves major changes unless directed by higher authority.
- 5.3.2. Resolves training, PAC and related problems.
- 5.3.3. Ensures complete implementation of this instruction.
- 5.3.4. Approves all DMAG training, PAC, and support funding issues.

5.4. AFMC Maintenance Training and PAC Working Group. The AFMC Maintenance Training and PAC Working Group is chaired by the HQ AFMC/LGP with representation from Center Maintenance Training and PAC Program Managers and other representatives on an ad hoc basis.

- 5.4.1. Advise AFMC Maintenance Training and PAC Council on Maintenance Training, PAC funding and related issues.
- 5.4.2. Resolves training and PAC and related problems.

5.4.3. Provides procedural guidance for implementation of this instruction.

5.4.4. Assign lead centers for specific RTRs and SSQs.

5.5. Center Maintenance Training and PAC Council. The Center Maintenance Training and PAC Council is chaired by the Center CC, CV, or CD. The Product Directors, the AFGE Local President or designee, and other senior leaders deemed appropriate are members.

5.5.1. Meets at the call of the chair (at least quarterly).

5.5.2. Ensures that the Maintenance Training and PAC program are effectively implemented.

5.5.3. Ensures an effective local implementation directive is published and kept current.

5.5.4. Ensures a frequent assessment of the Maintenance Training and PAC program is performed and all problems identified are corrected.

5.5.5. Reviews annual training and PAC assessment and takes corrective actions as necessary.

5.5.6. Review quarterly training and PAC metrics and take appropriate management actions.

5.6. Center PAC Program Manager. Each Center Commander designates a Center PAC Program Manager. The PAC Program Manager and Maintenance Training Manager will work with the product directorates/divisions Training and PAC Managers to form the center Maintenance Training PAC working group.

5.6.1. Acts as the OPR for Center PAC program directives.

5.6.2. Secretariat for the Center Maintenance Training and PAC council and chairs the Center Maintenance Training and PAC working group.

5.6.3. Assists all product directorates with Maintenance Training and PAC program implementation.

5.6.4. Schedules the annual Maintenance Training and PAC program review and organizes the Maintenance Training PAC working group to support this effort.

5.6.5. Acts as the center PACSS software functional program manager.

5.7. Center Maintenance Training Manager. Each Center Commander designates the Center Maintenance Training Manager. The Center Maintenance Training Manager will work with the Center PAC Program Manager.

5.7.1. Acts as the OPR for local Maintenance Training program directives.

5.7.2. Represents the maintenance training function at the Center Maintenance Training and PAC Working Group.

5.7.3. Assists all product directorates/divisions with Maintenance Training program requirements and implementation.

5.7.4. Participate in the annual Maintenance Training and PAC program review.

5.7.5. Identifies all standard center and lead center course development requirements to the center education and training function.

5.8. Center Maintenance Training and PAC Working Group.

- 5.8.1. Composed of all product directorate/division Maintenance Training Managers and PAC Program Managers, a representative of the AFGE Local, and chaired by the center PAC Program Managers.
- 5.8.2. Acts as the staffing function on all Maintenance Training and PAC program issues.
- 5.8.3. Advises the center Maintenance Training and PAC council on all Maintenance Training and PAC program issues.
- 5.8.4. Assists the center PAC Program Manager in organizing, performing, and reporting results of the annual Maintenance Training and PAC program review.
- 5.8.5. Assign OPRs for specific RTRs and SSQs and determine if standardized training can be applied.
- 5.8.6. Annually review all local RTR and SSQs to ensure adequacy of requirements and training

5.9. Lead Center for RTRs and SSQs. Lead centers for requirements and training associated with RTRs, SSQ and other designated command standards courses.

5.9.1. Lead centers will appoint a subject matter expert (SME) to support each RTR, SSQ and/or standard training requirement. These SMEs will work with other local SMEs and those from other centers to develop requirements and if applicable designated command standard training.

5.9.1.1. Lead center assignments for system specific SSQs require the designated lead center manage the procedural and policy guidance for assigned SSQs in chapter 4 of this instruction. Command standard courseware management is not a lead center responsibility for weapons system specific SSQs.

5.9.1.2. Lead center assignments for non-weapons specific SSQs and RTRs, both general and task specific, require the lead center to be responsible for the development, maintenance, and distribution of courseware. Lead centers will work with SMEs from other centers in the development and maintenance of the courseware. Lead center responsibilities include train-the-trainer when applicable, currency control and biennial course reviews.

5.9.2. The Center Maintenance Training and PAC Working group will coordinate the activities of all designated SMEs to ensure compliance with the requirements of this instruction.

5.9.3. Formal training materials for designated command standard training will include SOJT guides and checklists and Instructional System Development (ISD) course materials (if applicable) as described in chapter two of this instruction.

5.9.4. Ensure the requirements identified in this instruction are adequate and current to support the RTR, SSQ or standard training. Required changes will be sent in writing to HQ AFMC/LGP as soon as they are identified.

5.9.5. Lead centers will review each RTR, SSQ, and standard training requirement, if applicable, during their annual internal Training/PAC review to ensure adequacy of requirements and training. Every two years a complete review of formal training materials is required to include participation of other centers, SMEs. Review and reporting procedures are found in AFMCI 21-132.

5.10. Center Education and Training Function (DPE). The Center DPE manages the training process in support of maintenance training.

- 5.10.1. Coordinates changes that impact maintenance training policy and program with the Center Maintenance Training Manager.
- 5.10.2. Ensures maintenance training courses are developed utilizing the AF Instructional Systems Development (ISD) process and this instruction. Ensure training developers are trained and qualified to develop AF training programs (reference AFMAN 36-2234).
- 5.10.3. Provides formal classroom instruction to support maintenance training requirements through local, AETC, DOD or contract sources, using Air Force qualified instructor (or equivalent). Instructors will complete all AETC approved formal training courses they will instruct for the purpose of qualification.
- 5.10.4. Develop, coordinate, and distribute formal and SOJT material, training publications and references, and other related course materials through local, AF, DOD or contract sources.
- 5.10.5. Maintains a master copy of the Course Control Documents (CCDs), course background material (project plan, etc.), and initial/periodic reviews.
- 5.10.6. Validates formal training with the Division training manager and Production representative (i.e., Subject Matter Expert, SME) at a minimum of every two years. Collects and processes course critiques for all formal maintenance training. These critiques will be utilized to improve training.
- 5.10.7. Prior to any command standard formal course development to include SOJT guides, AFMC Form 853, **Course Chart**, will be submitted through Center Education Training Function (DPE) to HQ AFMC/LGP for approval and assignment of Command course numbers.
- 5.10.8. Ensure training completion information and SSQ recurring requirements are input to the ETMS Web in support of Maintenance Training and PAC program requirements. Provide attendance records to appropriate training manager within 5 days after training completion.
- 5.10.9. Ensures local course information is entered into ETMS web and kept current.

5.11. Center Product Director (PD). The Director will establish and maintain an effective Maintenance Training and PAC program in all depot production organizations.

- 5.11.1. Develop and implement directorate instructions to support Maintenance Training and PAC program.
- 5.11.2. Participate on center Maintenance Training PAC council.
- 5.11.3. Designate a directorate/division Maintenance Training and PAC Manager to work with the center DPE, center PAC Program Manager on all maintenance training and PAC issues.
- 5.11.4. Ensure that directorate/division maintenance training managers are trained and qualified to perform their duties.
- 5.11.5. Ensure all assigned maintenance personnel receive required training.
- 5.11.6. Review quarterly training and PAC metrics and take appropriate management actions.
- 5.11.7. Provide the proper environment in which employees can do quality work (training, correct tools, WCDs, tech data, equipment, and other process related factors).

5.12. Production Division Chief. The Production Division is responsible for ensuring maintenance personnel are trained. They will support scheduled training classes with personnel, airframes, and equipment.

- 5.12.1. Ensures managers and supervisors identify and document employee training and qualification IAW this instruction.
- 5.12.2. Provide subject matter experts (SME) to assist DPE in course/program development.
- 5.12.3. Review and analyze monthly training status reports for overdues, no-shows, and training backlogs to determine corrective actions and report unresolved problems in these areas to the product directorate.
- 5.12.4. Review and analyze monthly PAC program status reports for decertification, SSQ overdues, and program compliance to determine corrective actions and report unresolved problems in these areas to the product directorate.
- 5.12.5. Establish training and PAC manager functions, to include training manager, training monitor, and PAC manager positions to support training and PAC.
- 5.12.6. Designate SSQ officials, in writing, according to this instruction and local directives.

5.13. Production Division Training Function. Acts as the interface between the DPE and the production division for identification and administration of training in support of depot maintenance.

- 5.13.1. Assist supervisors in evaluating training needs and develop training matrixes for assigned personnel by screening training requests, comparing requirements against employee qualification, regulatory requirements, and prioritizes needs.
- 5.13.2. Develop and submit the training requirements in ETMS Web, and/or special funding requirements to DPE for establishing training allocations and providers. AFMCI 36-201, Education and Training Guide, provides guidance.
- 5.13.3. Assist in the identification of SSQ requirements within their division and in the development of qualification or requalification requirements and the supporting training. Maintain a listing of all SSQ officials appointed by the production division and SSQ qualification/requalification proficiency checklists.
- 5.13.4. Assist in the development and execution of their SOJT and SSQ programs for depot maintenance tasks.
- 5.13.5. Assist DPE in the preparation of training sessions, course outlines, and evaluation of course control documents (CCD), SOJT and tests for training conducted within the division.
- 5.13.6. Maintain training records (class rosters, SOJT completion and SSQ proficiency checklists, etc.) and coordinate training no-shows, overdues, and deviation letters through the appropriate training functions. Provide monthly training status of no-shows, overdues, and backlogs to Division, and quarterly status to Directorate.

5.14. Division PAC Program Manager. Ensures that qualification, certification, and documentation of the PAC Program is accomplished and maintained.

- 5.14.1. Assists supervision with identifying PAC tasks and associated training.

- 5.14.2. Works with the Division Maintenance Training Function to assist supervisor in identifying special training and regulatory safety requirements.
- 5.14.3. Ensures maintenance training and PAC program consistency for like skills and workloads.
- 5.14.4. Works with the Division Maintenance Training Function to develop and implement operating instructions to support the Maintenance Training and PAC program directives.
- 5.14.5. Represents division on Center Maintenance Training and PAC Working Group.
- 5.14.6. Conducts and/or facilitates Maintenance Training and PAC program assessments, evaluations, and reviews.
- 5.14.7. Provide monthly PAC program status reports for decertification, SSQ overdues, and program compliance to Division, and quarterly status to Directorate.
- 5.14.8. Manages organizational PACSS software.
- 5.14.9. Facilitates standardization of PACSS for like workloads.

5.15. PAC Supervisor. Supervisors are ultimately responsible for training, qualification and certification of assigned maintenance personnel.

- 5.15.1. Identify work center training and PAC requirements and work with the Maintenance Training Function and Division PAC Manager to ensure proper training is received and documented.
- 5.15.2. Identifies the PAC tasks associated with the work performed in their areas of responsibility.
- 5.15.3. Ensure all critical tasks and other secondary certification requirements are designated.
- 5.15.4. Establishes and maintains certification and decertification criteria.
- 5.15.5. Certifies and decertifies employee using established criteria.
- 5.15.6. Validates, plans and documents formal training and OJT according to PAC program requirements.
- 5.15.7. Utilize PACSS and ETMS Web to identify training and qualification requirements.
- 5.15.8. Ensure personnel meet prerequisites prior to attending training.
- 5.15.9. Report training deficiencies and request assistance as needed to the division training manager.
- 5.15.10. Performs an annual PAC certification review with each assigned employee.
- 5.15.11. Makes PAC records available and/or electronically accessible to the gaining supervisor for loaned, transferred, and TDY employees.

5.16. PAC Employee. The employee will accept all opportunities to improve their knowledge and ability in order to meet work requirements.

- 5.16.1. Give the supervisor and division training manager feedback on the training received.
- 5.16.2. Certify by stamp that all requirements of applicable technical data have been accomplished.
- 5.16.3. Accept full responsibility for the quality of all work they certify, including secondary certifications performed.

5.16.4. Validate by signature or electronically confirms the PAC documentation annually, or as required by the supervisor.

5.16.5. Can request additional training/experience at any time, to ensure PAC currency and integrity are maintained.

5.16.6. Administrative decertification may be requested pending further qualification actions. Such requests are not derogatory to the individual.

5.17. SOJT Trainer/Qualifier. The SOJT trainer/qualifier will provide SOJT to employees for assigned SSQ and selected critical tasks. The trainer must have a high level of knowledge and skills, and maintain qualification for the skill for which they train.

5.17.1. Plan, conduct, and deliver SOJT training according the formal SOJT course documentation, utilizing all guides, checklists, standards, and appropriate technical data.

5.17.2. Provide supervisor with feedback and documentation of employee's progress and qualifications.

5.17.3. Acts as SME for SOJT development.

5.18. SSQ Qualification Officials Duties.

5.18.1. Notifies the Center PAC Program Manager when changes to local SSQ requirements are necessary.

5.18.2. Prepares and maintains a SSQ proficiency checklist for the SSQ that contains all qualification SSQ requirements.

5.18.3. Coordinates with other SSQ officials and lead center points of contact supporting the same SSQ to ensure consistent application of the skill requirements.

5.18.4. Acts as the SME for formal training development for the SSQ.

5.18.5. Performs SOJT if required.

5.18.6. Witnesses and evaluates demonstrations of proficiency.

5.18.7. Verifies that the technician/mechanic is qualified to the certifying supervisor when all SOJT and SSQ proficiency checklist requirements have been met.

5.18.8. Performs evaluation/analysis of test specimens if applicable.

5.19. PAC Task Trainer/Qualifier. PAC task trainer/qualifiers are work leaders or journeymen (if a qualified work leader is not available) who have been assigned to the employee by the supervisor to conduct traditional OJT.

5.19.1. Perform OJT utilizing the appropriate technical data for the task being trained.

5.19.2. Inform employee of all applicable safety, technical, regulatory requirements for the task.

5.19.3. Witness employee's task performance at least several times to ensure proficiency.

5.19.4. Be the most qualified work leader/journeyman level technician and maintain task qualification and certification for which they train.

5.20. Prescribed Forms. AFMC Form 74, AFMC Form 75, AFMC Form 78, AFMC Form 795, and AFMC Form 853.

THOMAS BATTERMAN, SES, Deputy Director
Directorate of Logistics

Attachment 1**GLOSSARY OF TERMS*****Terms***

Adequacy—Meets all mandatory requirements.

Ancillary Duties—Secondary duties performed in support of a specific skill or task.

Cockpit—Aircraft space for flight crew, includes aircraft cabin, flight deck etc. when applicable.

Course Control Documents—Consists of course charts, course training standards, and plans of instruction.

Decertification—The act of removing the certification status of an individual, which prevents that individual from certifying the task(s) until satisfactory retraining and proficiency demonstration has been accomplished.

Employee Certification—The formal documented authorization for an individual to certify and accept responsibility for the conformance of a product or service related task.

Equivalency—The documented evidence of previous training or work experiences verified by a proficiency demonstration.

Logistics Business Board—Consists of three tiers: DMAG Working Group, Steering Group and Executive Group.

Maintenance Support Personnel—Personnel that provide support to maintenance production processes (i.e., planners, schedulers, quality specialists, etc.).

Mission Design Series (MDS)—Identifies the mission, design and series of an aerospace vehicle.

Multitask—A group of related tasks required to complete a job.

Nondestructive Inspection (NDI)—Methods used to examine the soundness of material or a part without impairing or destroying the serviceability of the material or part.

PAC Certification Codes—Codes utilized on WCDs for determining the type of certification/inspection required. Reference AFMCI 21-110.

Product—An item subject to maintenance or manufacturing (piece of equipment, component, assembly, subassembly, end item or software). In most cases, depot maintenance services can be considered "products"(corrosion control, painting, etc.).

Product Related Service—For the purpose of this instruction, a product related service is any work performed according to a WCD in support of depot maintenance.

Production Acceptance Certification Standard System (PACSS GO-15)—A comprehensive relational computer data base system that documents training, proficiency demonstration, and other qualification actions leading to the certification of depot workers. It is available in both the stand-alone and network versions.

Proficiency Level—The proficiency levels are listed in the AFMAN 36-2236, *Guidebook for Air Force Instructors*. The levels required for SOJT, and SSQ are identified in attachments 2 and 6 of this instruction.

Qualification—The documented evidence that an individual has completed required training, testing, proficiency demonstration, and possesses the required knowledge and skills to perform a function.

Qualification Official (SSQ)—An individual authorized in writing, to evaluate special skills qualifications of individuals to determine if they are proficient in the skill. This includes evaluation of test specimens, written tests, and proficiency demonstrations. The qualification official possesses sufficient knowledge in the skill to perform this function.

Quality—Every aspect of a product or service, which affects its ability to efficiently, satisfy customer needs.

Recertification—The formal act of requalification and documenting the performance of an individual to the level necessary to satisfy established certification criteria.

Revocation—The act of withdrawing an employee's certification authorization as a result of poor workmanship, improper use, or intentional misuse of the certification privilege.

SOJT Completion Checklist—SOJT completion checklist identifies a step by step process to document training.

SSQ Disqualification—The act of removing the SSQ qualification status of an individual when requalification requirements are not maintained. PAC task decertification follows SSQ disqualification.

SSQ Proficiency Checklist—SSQ proficiency checklist identifies the step by step documentation of SSQ qualification/requalification requirements.

SSQ Requalification—The act of verifying SSQ knowledge and proficiency by testing and demonstrated abilities on a skill or specific group of tasks.

Secondary Certification—The inspection and acceptance of a product or service by two PAC certified individuals. This inspection can be in-process/product or end-process/product.

Subtask—A breakout of a task, generally a group of operations, that must be accomplished to complete the task.

Task Certification—The certification by a PAC certified individual, that a product or service conforms to all technical requirements and related specifications. Task certification is performed by stamping the appropriate WCDs.

Task Identification—A task consisting of a group of operations, that is a necessary and logical step in the completion of a larger industrial process or procedure involving a product or product-related service.

Team Task—A task requiring more than one individual to complete the task.

Work Control Document (WCD)—WCDs are also referred to as Work Documents (WD) when associated with some depot maintenance data systems. A WCD or WD is a printed form, work card or computer generated document used for work control, identification, routing, certification and accountability of depot maintenance production. WCDs are defined in AFMCI 21-110. For the purposes of this instruction, a WCD can be any form that is certified by a PAC employee. PAC work documents not covered in AFMCI 21-110 should be identified in the center PAC directive.

Workmanship—A level of product/service that conforms to technical orders and other directives.

Attachment 2

STRUCTURED ON-THE-JOB TRAINING (SOJT)

A2.1. SOJT Guide and Checklist. Guides and checklists will be developed for all SOJT. Development will use the following format for the guide and checklist. SOJT will list all training elements and technical references. The employee will be trained to the proficiency level identified on the checklist. SOJT guides are normally in booklet form.

A2.1.1. SOJT Guide. **NOTE:** OO-ALC/TIU is lead center for the development standard of SOJT guides and can provide further guidance.

SOJT: (Title)

(Guide Number)

STRUCTURED ON-THE-JOB TRAINING (SOJT) GUIDE

OVERVIEW: This document is the SOJT Guide required by AFMCI 21-108. It was developed to help the SOJT Trainer/Qualifier ensure that employees are trained. This guide is not technical data and must be used in conjunction with the most current version of the technical data and/or applicable directives. If changes have been made to the tech data, please notify your training manager.

SECTION I:

This section deals with the duties as an SOJT Trainer/Qualifier. It covers the role of the SOJT Trainer/Qualifier, steps in effective training, and information on the SOJT guide. Determine what trainee already knows- this can be determined by reviewing the trainee's qualification record, questioning the trainee, or asking co-workers and supervisor.

SECTION II:

This section consists of two lessons. Lesson 1 covers the areas that need to be checked prior to training the task(s). Lesson 2 teaches the trainee to identify and gather all tools, technical data, equipment, and personnel needed to perform the tasks. Lists training objectives and standards that will be met.

Lesson 1.

1a. Read & understand Flight Control System Maintenance requirements. SOJT Trainer/Qualifier question trainee on the material within the technical data referenced.

Lesson 2.

1c. Obtain rope, stands, equipment, electrical power unit and hydraulic power unit.

SECTION III:

This section consists of two lessons. Lesson 1 covers mandatory pre-steps of the task. Lesson 2 covers the actual training of the tasks. All cautions, warnings and notes are identified from the technical data. This references the task numbers on the checklist.

Lesson 1.

2a. Perform Wing Flap System installation/integrity & FOD Inspection.

Warning- NO hydraulic or electrical power is to be applied during this procedure.

2a.1. Physically check to ensure the components are properly installed & serviced, 1C-135(K)A-2-8.

2a.2. Flap control lever for freedom of movement, full operation 00-50 detent. (list all the specific steps in sequence to the training need).

Lesson 2.

2e. Perform Normal Wing Flap Operational Checkout.

Warning- Care must be exercised during flap operations to ensure that personnel and equipment are clear.

2e.1. Follow step by step procedures in the C-135(K)A-2-8 para 5-31, or 1C-135(K)R-2-8JG-7. (list all the specific steps in sequence to the training need).

A2.2. SOJT Checklist. The SOJT Trainer/Qualifier will use the checklist as a standard to ensure all requirements are trained IAW technical data, regulatory directives, & shop practices. This checklist will be used each time SOJT is accomplished. See Attachment 5 for SOJT documentation procedures.

STRUCTURED ON-THE-JOB TRAINING (SOJT) CHECKLIST		
(Title)	(SOJT Course Number)	
Name: _____	Employee ID #: _____	Work Center: _____
Prerequisite Training Status: (List all training requirements for this SOJT, Tracking #, Title & Date completed.)		
000078 KC-135 Safe For Maintenance	Date: _____	
000124 KC-135 Emergency Ground Escape	Date: _____	
000185 KC-135 Flight Control Maintenance	Date: _____	
Training performed on: (<u>Component Noun, Component/Aircraft Serial Number</u>) (Identify the aircraft or component that the SOJT is being accomplished on. This is for audit and compliance purposes.)		
Task Accomplished Number of Times: ____ (This documents the number of times the trainee has accomplished the tasks.)		
Demonstrate Tasks @ Proficiency Level 3b: Employee: Can do all parts of the task. Needs only spot check of completed work. Can name the steps in doing the task and tell how each is done.	Initials SOJT Employee	Initials SOJT Trainer
(List all training requirements below- from general to specific. Identify knowledge/task references, TOs Directives.)		
1a. Read & understand Flight Control System Maintenance requirements. 1-1A-8, 1C-135(K)A-2-8, Section I & Section 5.	_____	_____
1b. Perform aircraft status check for flight control maintenance, electrical & hydraulic power. (Reference all procedures & directives required)	_____	_____
1c. Prepare aircraft for Wing Flap Operation: Brief Team, rope area, setup equipment. (Reference all procedures & directives required).	_____	_____
2a. Perform Wing Flap System installation/integrity & FOD Inspection. 1-1A-8 & 1C-135(K)A-2-8 series.	_____	_____
2b. Apply electrical power. 1C-135(K)A-2-2-1, para 1-18 & 1C-135(K)R-2-2JG-2, para 2-8.	_____	_____
2c. Connect interphone communications. 1C-135(K)A-2-2JG-1, para 2-14 & 1C-135(K)R-2-2JG-2, para 2-16.	_____	_____

2d. Pressurize right hydraulic system. 1C-135(K)A-2-2JG-1, para 2-9 & 1C-135(K)R-2-2JG-2, para 2-10.	_____	_____
2e. Perform Normal Wing Flap Operational Check- out. 1C-135(K)A-2-8, para 5-31 & 1C135(K)R-2-8JG-7.	_____	_____
3a. Perform post operational checkout procedures: Shut down, disconnect, documentation, clean-up, etc. (Reference all procedures & directives).	_____	_____
SOJT Employee Signature:	_____	Date: _____
SOJT Trainer/Qualifier Signature:	_____	Date: _____
Supervisor Signature:	_____	Date: _____

Attachment 3**GENERAL RECURRING TRAINING REQUIREMENTS (RTR)**

A3.1. General Recurring Training Requirements. These recurring training requirements apply to an occupation or group of related tasks. These are mandatory for the personnel identified in the “Application” of each listed requirement. These requirements are not directly tied to specific tasks. This list is not all inclusive, Centers will establish additional General RTRs specific to the work requirements and document the requirements in local directives.

A3.2. Corrosion Control.

A3.2.1. Regulatory Documents. AFMCI 21-117, *Corrosion Control and Prevention Program and Marking of Aerospace Vehicles/Equipment*, T.O. 1-1-691, *Aircraft weapons Systems Cleaning and Corrosion Control*, other TOs and applicable directives.

A3.2.2. Lead Center. WR-ALC, Robins AFB, Georgia.

A3.2.3. Application. All aircraft and aircraft component/equipment maintenance personnel performing depot maintenance according to a WCD.

A3.2.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Training will be in accordance with the regulatory documents.

A3.2.5. Refresher Training. Refresher training is required every three years (not to exceed 36 months) and includes problem areas, updates and other relative information.

A3.2.6. Comments. Command Training courses will be used. Additional specific training will be developed locally related to local procedures, requirements, and directives, and included in the initial and refresher training.

A3.3. Fire Extinguisher Training.

A3.3.1. Regulatory Documents. AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*, AFOSH 91-56, *Air Force Occupational Safety and Health Standard*, and other applicable directives.

A3.3.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

A3.3.3. Application. All Air Force personnel.

A3.3.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Training will be in accordance with the regulatory documents.

A3.3.5. Refresher Training. Refresher training is required annually (not to exceed 12 months) and includes problem areas, updates and other relative information.

A3.3.6. Comments. Command Training courses will be used. Additional training will be developed locally related to local procedures, requirements, and directives, and included in the initial and refresher training.

A3.4. Foreign Object Damage (FOD) Prevention.

A3.4.1. Regulatory Documents. AFMCI 21-122, *Foreign Object Damage (FOD) Prevention Program*, and other applicable directives.

A3.4.2. Lead Center. WR-ALC, Robins AFB, Georgia.

A3.4.3. Application. All AFMC units, organizations, tenants, and contracted services that work in, on, around, or travel through areas near aircraft, missiles, drones, space systems, support equipment, engines, or components, including personnel operating vehicles and equipment on AFMC flight-lines, runways, taxiways, ramps, and in aircraft hangars or maintenance areas. It also applies to all activities and contractors that test, design, or operate aircraft, aerospace components, and aerospace support equipment, or organizations or shops supplying parts or equipment that will be installed or attached to an aircraft or related equipment.

A3.4.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Training will be in accordance with the regulatory documents.

A3.4.5. Refresher Training. Refresher training is required annually (not to exceed 12 months) and includes problem areas, updates and other relative information.

A3.4.6. Comments. Command Training courses will be used. Additional specific training will be developed locally related to local procedures, requirements, and directives, and included in the initial and refresher training.

A3.5. Maintenance Training and Production Acceptance Certification (PAC) Program.

A3.5.1. Regulatory Documents. AFMCI 21-108, *Maintenance Training and Production Acceptance Certification (PAC) Program*, and other applicable directives.

A3.5.2. Lead Center. OO-ALC, Hill AFB, Utah.

A3.5.3. Application. All depot maintenance personnel including support personnel, supervisors and managers.

A3.5.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Training will include program objectives, qualification, and certification requirements. Training will be in accordance with the regulatory documents.

A3.5.5. Refresher Training. Refresher training is required every 36 months and includes updates and other relative information.

A3.5.6. Comments. Command Training courses will be used. Additional specific training will be developed locally related to local procedures, requirements, and directives, and included in the initial and refresher training.

A3.6. Technical Data Use and Compliance.

A3.6.1. Reference Documents. AFPD 21-3, *Technical Orders*, AFMCI 21-301, *AFMC Technical Order System Implementing Policies*, AFMCI 21-110, *Depot Maintenance Technical Data and Work Control Document*, AFMC Manual 21-1, *AFMC Technical Order Systems Procedures*, TO 00-5-1, *Air Force Technical Order System*, and other 00-5 series technical orders and applicable directives.

A3.6.2. Lead Center. OO-ALC, Hill AFB, Utah.

A3.6.3. Application. All personnel who perform depot maintenance tasks.

A3.6.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Employees must thoroughly understand the importance of strict compliance with technical data, how to use it, the need and methods to keep it current and when it must be open and in actual use on the job. Training will be in accordance with the regulatory documents.

A3.6.5. Refresher Training. Personnel will receive refresher training at 24 months intervals and includes problem areas, updates and other relative information. Employees must thoroughly understand the importance of strict compliance with technical data, how to use it, the need and methods to keep it current and when it must be open and in actual use on the job.

A3.6.6. Special Comments. Command Training will be used. Additional weapons systems and/or component specific technical data use and compliance training will be developed locally and included in the initial and refresher training. Failure to use or comply with technical data or defects caused by non-compliance with technical data requirements can be grounds for PAC decertification.

A3.7. Tool Control and Accountability.

A3.7.1. Regulatory Documents. AFMCI 21-107, *Tool Control and Accountability Program*, and other applicable directives.

A3.7.2. Lead Center. WR-ALC, Robins AFB, Georgia.

A3.7.3. Application. All personnel who work with tools, along with all levels of supervision and management up to the production division chief.

A3.7.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Training must stress all aspects of control and use of tools including individual responsibilities and the consequences of noncompliance. Training will be in accordance with the regulatory documents.

A3.7.5. Refresher Training. Refresher training is required annually (not to exceed 12 months) and includes problem areas, updates and other relative information.

A3.7.6. Comments. Command Training courses will be used. Additional specific training will be developed locally related to local procedures, requirements, and directives, and included in the initial and refresher training.

A3.8. Work Control Documents (WCD) and Aircraft Status Forms.

A3.8.1. Regulatory Documents. TO 00-20-5, *Aerospace Vehicle Inspection and Documentation*, AFMCI 21-110, *Depot Maintenance Technical Data and Work Control Documents*, AFMCI 21-133, *Depot Maintenance Management for Aircraft Repair*, other TOs and applicable directives.

A3.8.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma

A3.8.3. Application. All depot personnel who perform aircraft and component work, generate WCDs, or document WCDs and/or aircraft status forms (i.e. AFTO Form 781 series, and WCDs).

A3.8.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Employees must thoroughly understand the importance of keeping aircraft/component status current to include use of symbols, documentation of over and above/unpredictable work to include follow-on maintenance.

nance requirements, completion and certification of WCDs. Training will be in accordance with the regulatory documents.

A3.8.5. Refresher Training. Personnel will receive refresher training at 24 months interval and include problem areas, updates and other relative information.

A3.8.6. Comments. Command Training courses will be used. Additional specific training will be developed locally related to local procedures, requirements, and directives, and included in the initial and refresher training.

Attachment 4**TASK RELATED RECURRING TRAINING REQUIREMENTS (RTR)**

A4.1. Task Related Recurring Training Requirements. These recurring training requirements are required to perform specific tasks. Task related RTRs are linked to specific tasks and will automatically decertify the employee if not completed on time. PAC task certification will not be granted until the initial training and task related training requirements are completed. This list is not all inclusive, Centers will establish additional Task Related RTRs specific to the work requirements and document the requirements in local directives.

A4.2. Aircraft Cockpit/Egress Familiarization.

A4.2.1. Regulatory Documents. AFI 21-112, *Aircraft Egress and Escape Systems*, AFI 91-201, *Explosive Safety Standards*, AFI 91-202, *US Airforce Mishap Prevention Program*, and the applicable weapon system TOs/checklists/job guides.

A4.2.2. Lead Center. OO-ALC, Hill AFB, Utah.

A4.2.3. Application. All personnel other than qualified egress personnel, who access cockpits/cabins equipped with operational egress systems.

A4.2.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Training will include safety device locations, hazards associated with the system. Ideally, initial training should be hands-on using the actual aircraft. New personnel must receive initial training regardless of the previous aircraft experience. If the instructors are not egress qualified, the training must be witnessed and verified by the applicable SSQ qualifying official or an egress supervisor every 6 months, as a minimum.

A4.2.5. Refresher Training. Refresher training is required annually (not to exceed 12 months) and includes problem areas, updates, and other relative information.

A4.2.6. Comments. Weapons systems specific training will be developed locally. Supervisors must take immediate actions when physical impairment of any kind hinders the employees ability to safely egress the aircraft.

A4.3. Aircraft Emergency Ground Escape.

A4.3.1. Regulatory Documents. The applicable weapon system TOs/checklists/job guides.

A4.3.2. Lead Center. OO-ALC, Hill AFB, Utah.

A4.3.3. Application. All depot maintenance personnel who gain access in or on the aircraft.

A4.3.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Training must be practical in nature to the extent possible to include the ability and knowledge to safely egress the aircraft. This training must be complete prior to gaining access in or on the aircraft in case of an emergency.

A4.3.5. Refresher Training. Refresher training is required every 24 months.

A4.3.6. Comments. Weapons systems specific training will be developed locally. Supervisors must take immediate actions when physical impairment of any kind hinders the employees ability to safely egress the aircraft.

A4.4. Aircraft Jet Engine Borescoping.

A4.4.1. Regulatory Documents. Applicable general and weapons systems specific technical data.

A4.4.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

A4.4.3. Application. Personnel who borescope aircraft jet engines. Application to other borescope tasks will be determined locally.

A4.4.4. Initial Training. Initial training will consist of formal classroom and/or SOJT.

A4.4.5. Refresher Training. Refresher training is required every 24 months.

A4.4.6. Comments. Weapons systems specific training will be developed locally.

A4.5. Aircraft Jet Engine Inlet Inspection.

A4.5.1. Regulatory Documents. Applicable weapons system TOs/checklists/job guides and other applicable directives.

A4.5.2. Lead Center. OC-ALC, Tinker AFB, Oklahoma.

A4.5.3. Application. All personnel who perform flight line jet engine inlet inspections on aircraft installed engines. Personnel performing inlet inspections will be experienced aircraft or engine mechanics.

A4.5.4. Initial Training. Initial training will consist of formal classroom and/or SOJT.

A4.5.5. Refresher Training. Refresher training is required every 24 months.

A4.5.6. Comments. All flightline inlet inspections will be performed using Red X procedures. Any blade blending performed will be done by a fully qualified and certified engine mechanic. Weapons systems specific training will be developed locally.

A4.6. Aircraft Marshaling.

A4.6.1. Regulatory Documents. AFI 11-218, *Aircraft Operation and Movement On The Ground*, applicable weapons system TOs/checklists/job guides and other applicable directives.

A4.6.2. Lead Center. OO-ALC, Hill AFB, Utah.

A4.6.3. Application. All personnel who perform flight line aircraft marshaling.

A4.6.4. Initial Training. Initial training will consist of formal classroom and/or SOJT.

A4.6.5. Refresher Training. Refresher required every 24 months.

A4.6.6. Comments. AF or AFMC standard courses may be used.

A4.7. Cardiopulmonary Resuscitation (CPR).

A4.7.1. Regulatory Documents. AFOSH 91-25, *Confined Spaces*, AFOSH 91-100, *Aircraft Flight Line –Ground Operations and Activities*, TO 1-1-3, *Inspection and Repair of Aircraft Integral Tanks and Fuel Cells*, and other applicable directives.

A4.7.2. Lead Center. WR-ALC, Robins AFB, Georgia.

A4.7.3. Application. All depot maintenance personnel (assigned to aircraft maintenance areas) who install, maintain, relocate, inspect or repair of electrical systems and/or equipment, or perform duties as safety observers. For personnel performing fuel system maintenance the application is listed in T.O. 1-1-3. For application to confined space see AFOSH 91-25.

A4.7.4. Initial Training. Initial training will consist of formal classroom and/or SOJT.

A4.7.5. Refresher Training. Refresher training is required every 24 months.

A4.7.6. Comments. Instructors must certified to train CPR, through medical facility, American Red Cross, or American Heart Association.

A4.8. Confined Space.

A4.8.1. Regulatory Documents. AFOSH 91-25, *Confined Spaces*, T.O. 1-1-3, *Inspection and Repair of Aircraft Integral Tanks and Fuel Cells*, and other applicable directives.

A4.8.2. Lead Center. WR-ALC, Robins AFB, Georgia.

A4.8.3. Application. Personnel who enter (Entrant), Attend, Test, Monitor, or Supervise entry in documented confined spaces as outlined in AFOSH 91-25 and T.O. 1-1-3.

A4.8.4. Initial Training. Initial training will consist of formal classroom and/or SOJT. Initial training will be accordance with AFOSH Standard 91-25 and T.O. 1-1-3 and Local and State standards as applicable. Process and Weapon system specific training must also be included.

A4.8.5. Refresher Training. Refresher training is required annually (not to exceed 12 months) and includes problem areas, updates and other relative information applicable to local and upper level directives.

A4.8.6. Comments. Command Training courses will be used. Additional specific training will be developed locally related to local procedures, requirements, and directives, and included in the initial and refresher training.

A4.9. Weapons/Explosive Safety Training.

A4.9.1. Regulatory Documents. AFI 91-201, *Explosives Safety Standards*, AFI 91-202, *US Air Force Mishap Prevention Program*, and applicable safety and technical directives.

A4.9.2. Lead Center. OO-ALC, Hill AFB, Utah.

A4.9.3. Application. All personnel (supervisory and non-supervisory) who operate, handle transport maintain, load, or dispose of missiles, explosives, or nuclear weapons. Centers must identify all personnel who need this training and ensure it is tracked if it is not already part of an existing requirement.

A4.9.4. Initial Training. Initial training should include all information required to safely perform the job. Initial training is required prior to performing these duties. The training is tailored to the specific duties and weapons systems supported.

A4.9.5. Refresher Training. Refresher training is required annually (not to exceed 12 months) and includes problem areas, updates and other relative information.

A4.9.6. Comments. AF or AFMC standard courses may be used. Additional specific training will be developed locally related to local procedures, requirements, and directives, and included in the initial and refresher training.

Attachment 5**TRAINING AND SSQ DOCUMENTATION REQUIREMENT.**

A5.1. Documentation. Maintenance training and SSQ documentation is provided in a variety of formats. Each documentation requirement ensures integrity, provides an audit trail, and training verification to Division Management.

A5.2. Training Documentation. Classroom and formal briefings will be documented using AF Form 1151 or electronic attendance/completion forms or methods. Attendance records will be submitted to the appropriate training managers within 5 days after training completion.

A5.2.1. AF Form 1151, Training Attendance and Rating. This form will be used for training conducted by AF civilian instructors within the ALC. The form must include the following information:

- Course Title & Number.
- Course Date & Time.
- Course Location.
- Course Hours.
- Course Rating.
- Instructor Full Name.
- Instructor Office Symbol.
- Instructor Signature.
- Student Full Name.
- Student Identification Number (CAMS, ETMS, or Last 4 of SSN).
- Student Office Symbol.
- Student Series and Grade.
- Student Signature.

A5.2.2. Electronic Training Attendance Record. If electronic training management system is used the requirement for written (hard copy) attendance record applies. The hard copy can be electronically generated, however it must contain specific information required for maintenance training tracking and PACSS. The electronically generated training attendance record information requirement is the same as the AF Form 1151 listed above.

A5.3. SOJT & SSQ Documentation. This documentation is in the form of checklists. The checklist identifies the standards that must be met and provides verification of training or SSQ completion in the form of initials and signatures. When the SOJT or SSQ checklist is completed the checklist will be submitted to the trainee's supervisor. The supervisor will input completion information into PACSS and provide the checklist to appropriate Training Manager. Refer to Attachments 2 and 6 for the general checklist format.

A5.4. AETC and TD Training Documentation. Documentation for training provided by ATEC or TDs will follow the requirements established by the applicable AETC or TD instruction. The forms will be provided to the Division Training Manager for file and input in to ETMS Web or equivalent system.

Attachment 6

SSQ GUIDE AND CHECKLIST

A6.1. SSQ Guide and Checklist. The guide and checklist will be developed for all Command and Local SSQs. SSQ development will use the following format for the guide and checklist. The SSQ will list all elements and technical references.

A6.2. SSQ Qualification / Requalification Guide. This guide will be used by the SSQ Official to identify all SSQ requirements. This guide is used every time SSQ qualification or requalification is accomplished.

SSQ: (Title)

(Guide Number)

SPECIAL SKILLS QUALIFICATION / REQUALIFICATION (SSQ) GUIDE

OVERVIEW: This document is the Qualification Guide required by AFMCI 21-108. It was developed to help SSQ Officials ensure that employees are qualified to perform a critical skill. This guide is not technical data and must be used in conjunction with the most current version of the applicable directives. If changes have been made to the tech data, please notify your training manager.

SKILL: Identify skill requirements (i.e., Store, transfer or otherwise handle liquid oxygen).

SKILL DESCRIPTION: Identify task requirements (i.e., Transfers liquid oxygen from a variety of liquid O2 tanks).

APPLICABLE TO: Employee(s) Series/grade (i.e. Pneudraulic System Mechanics, WG 8255-09 or higher).

QUALIFICATION OFFICIAL CRITERIA: SSQ Official Requirements. (i.e. Qualified in this skill, authorized in writing by division)

APPLICABLE DIRECTIVES:List all current T.O.s and required directives. (i.e. T.O. 00-25-172: Ground Servicing of Aircraft, 1 February 1987, with change 34, 4 September 1998).

TRAINING REQUIRED: List all training required to support skill. (i.e. Liquid Nitrogen, Course #766 SOJT).

QUALIFICATION INSTRUCTIONS: List all requirements individual must receive to safely and effectively accomplish this task:

Complete a written examination with a minimum score of 85% (corrected to 100%).

Demonstrate proficiency to a qualification official, through oral and practical exam, the ability to correctly:

Identify applicable technical directives and briefly explain their contents.

Describe safety precautions, warnings, notes, which must be observed during the accomplishment of the task.

Perform leak and functional check.

DOCUMENTATION REQUIRED: AFMC Form 75 Printed/electronic, ETMS Web.

DISQUALIFICATION: List reason for Disqualification: (i.e. Failure to demonstrate understanding of the operations involved, violation of safety procedures or unreliable performance). Retraining and successful demonstration of proficiency to a qualification official will be required prior to regaining qualification.

REQUALIFICATION: List requirements. (i.e. demonstration of proficiency, successful completion of written testing)

A6.3. SSQ Qualification / Requalification Checklist. This SSQ Official will use the checklist as a standard to ensure the SSQ employee demonstrates proficiency on all required tasks. The employee must demonstrate proficiency to the required level. See Attachment 5 for processing procedures. This checklist will be used each time SSQ qualification or requalification is accomplished.

SSQ QUALIFICATION/REQUALIFICATION CHECKLIST(Title)(SSQ Number)

Name: _____ Employee ID #: _____ Work Center: _____

Prerequisite Training Status: (List all training requirements for this SOJT, Tracking #, Title & Date completed.)

000078 KC-135 Safe For Maintenance Date: _____

000124 KC-135 Emergency Ground Escape Date: _____

000185 KC-135 Flight Control Maintenance Date: _____

000234 KC-135 SOJT Wing Flap Operational Checkout Date: _____

SSQ performed on: (Component Noun, Component/Aircraft Serial Number) (Identify the aircraft or component that the SSQ is being accomplished on. This is for audit and compliance purposes.)

Demonstrate Tasks @ Proficiency Level 3c Employee:
 Can do all parts of the task. Needs only spot check of completed work. Can explain why & when the task must be done & why each step is needed. Meets local demands for accuracy.

Initials SSQ
Employee

Initials SSQ
Trainer

(List all proficiency demonstration requirements below.)

1a. Perform aircraft status check for flight control maintenance, electrical & hydraulic power. _____

1b. Prepare aircraft for Wing Flap Operation: Brief Team, rope area, setup equipment. _____

2a. Perform Wing Flap System installation/integrity & FOD Inspection. A-1A-8 & 1C-135(K)A-2-8 series. _____

2b. Apply electrical power. 1C-135(K)A-2-2-1, para 1-18 & 1C-135(K)R-2-2JG-2, para 2-8. _____

2c. Connect interphone communications.
1C-135(K)A-2-2JG-1, para 2-14 & 1C-135(K)R-2-2JG-2, para 2-16. _____2d. Pressurize right hydraulic system.
1C-135(K)A-2-2JG-1, para 2-9 & 1C-135(K)R-2-2JG-2, para 2-10. _____2e. Perform Normal Wing Flap Operational Checkout.
1C-135(K)A-2-8, para 5-31 & 1C135(K)R-2-8JG-7. _____

3a. Perform post operational checkout procedures: Shut down, disconnect, documentation, clean-up, etc. _____

SSQ Employee Signature:	Date:
_____	_____
SSQ Trainer/Qualifier Signature:	Date:
_____	_____
Supervisor Signature:	Date:
_____	_____